

# **Iowa Department of Natural Resources Final Title V Operating Permit**

**Name of Permitted Facility: University of Northern Iowa  
Power Plant**

**Facility Location: 30<sup>th</sup> Street & Nebraska Street  
Cedar Falls, IA, 50614**

**Air Quality Operating Permit Number: 04-TV-022**

**Expiration Date: 12/16/09**

**EIQ Number: 92-5192**

**Facility File Number: 07-02-006**

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This permit is issued in accordance with 567 Iowa Administrative Code Chapter 22, and is issued subject to the terms and conditions contained in this permit. Two separate Title V Permits are being issued for the University of Northern Iowa (one stationary source). This Title V permit is for the Power Plant portion of the University and the Title V permit 02-TV-016 has been issued for the Main Campus.

**For the Director of the Department of Natural Resources**

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Douglas A. Campbell, Supervisor of Air Operating Permits Section

Date

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## Abbreviations

acfm.....	actual cubic feet per minute
CFR.....	Code of Federal Regulation
CE .....	control equipment
CEM.....	continuous emission monitor
°F.....	degrees Fahrenheit
EIQ.....	emissions inventory questionnaire
EP.....	emission point
EU .....	emission unit
gr./dscf .....	grains per dry standard cubic foot
gr./100 cf.....	grains per one hundred cubic feet
IAC.....	Iowa Administrative Code
IDNR.....	Iowa Department of Natural Resources
MVAC.....	motor vehicle air conditioner
NAICS.....	North American Industry Classification System
NSPS .....	new source performance standard
ppmv .....	parts per million by volume
lb./hr.....	pounds per hour
lb./MMBtu .....	pounds per million British thermal units
SCC.....	Source Classification Codes
scfm.....	standard cubic feet per minute
SIC .....	Standard Industrial Classification
TPY .....	tons per year
USEPA.....	United States Environmental Protection Agency
VMT/hr .....	Vehicle Miles Traveled per hour

### Pollutants

PM.....	particulate matter
PM <sub>10</sub> .....	particulate matter ten microns or less in diameter
SO <sub>2</sub> .....	sulfur dioxide
NO <sub>x</sub> .....	nitrogen oxides
VOC .....	volatile organic compound
CO.....	carbon monoxide
HAP.....	hazardous air pollutant

# I. Facility Description and Equipment List

Facility Name: University of Northern Iowa – Power Plant

Permit Number: 04-TV-022

Facility Description: College/University (SIC 8221)

## Equipment List

Emission Point Number	Emission Unit Number	Emission Unit Description	IDNR Construction Permit Number
EP-199-1	EU-199-BLR-1	Boiler #1	
EP-199-2	EU-199-BLR-2	Boiler #2	
EP-199-3	EU-199-BLR-3	Boiler #3	78-A-165-S2
	EU-199-BLR-4	Boiler #4	89-A-034-S
EP-199-5A	EU-199-ASH-5A	#3 Ash System-Conveying	78-A-164
EP-199-6A	EU-199-ASH-6A	#4 Ash System-Conveying	89-A-038
EP-199-6B	EU-199-ASH-6B	#4 Ash System-Silo Bin Vent	89-A-037
EP-199-7	EU-199-LIME-7	#4 Limestone System-Silo Bin Vent	89-A-035
EP-199-8A	EU-199-CHS-8A	Coal System-Plant Coal Handling	92-A-656-S
EP-199-8B	EU-199-CHS-8B	Coal System-Bunker #3 Silo	89-A-036
EPF-199-9A	EUF-199-COAL-9A	Coal Pile Receiving	89-A-039
EPF-199-9B	EUF-199-COAL-9B	Coal Pile Truck Traffic	
EPF-199-9C	EUF-199-COAL-9C	Coal Pile Front End Loader Traffic	
EPF-199-9D	EUF-199-COAL-9D	Coal Pile Reclaim Hopper	89-A-040
EPF-199-10A	EUF-199-COKE-10A	Petroleum Coke Receiving	
EPF-199-10B	EUF-199-COKE-10B	Petroleum Coke Pile	
EPF-199-10C	EUF-199-COKE-10C	Petroleum Coke Reclaim	
EP-199-11	EU-199-AST-11	Fuel Oil Storage Tank	

## Insignificant Activities Equipment List

Insignificant Emission Unit Number	Insignificant Emission Unit Description
EUF-199-WELD-14	Maintenance Welding
EUF-199-PARTS-15	Parts Washer
EUF-199-ASH-6C	#4 Ash System – Fugitive Truck Loading
EUF-199-ASH-5C	#3 Ash System – Fugitive Truck Loading
EUF-199-ASH-5B	#3 Ash System – Bin Vent
EU-199-LUBE-13	Lube Oil Vapor Extractor
EU-199-AST-12	Vehicle Fuel Storage Tank

## II. Plant-Wide Conditions

Facility Name: University of Northern Iowa – Power Plant

Permit Number: 04-TV-022

Permit conditions are established in accord with 567 Iowa Administrative Code rule 22.108

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### Permit Duration

The term of this permit is: Five years from permit issuance.

Commencing on: December 17, 2004

Ending on: December 16, 2009

Amendments, modifications and reopenings of the permit shall be obtained in accordance with 567 Iowa Administrative Code rules 22.110 - 22.114. Permits may be suspended, terminated, or revoked as specified in 567 Iowa Administrative Code Rules 22.115.

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### Emission Limits

*Unless specified otherwise in the Source Specific Conditions, the following limitations and supporting regulations apply to all emission points at this plant:*

Opacity (visible emissions): 40% opacity

Authority for Requirement: 567 IAC 23.3(2)"d"

Sulfur Dioxide (SO<sub>2</sub>): 500 parts per million by volume

Authority for Requirement: 567 IAC 23.3(3)"e"

Particulate Matter (state enforceable only)<sup>1</sup>:

No person shall cause or allow the emission of particulate matter from any source in excess of the emission standards specified in this chapter, except as provided in 567 – Chapter 24. For sources constructed, modified or reconstructed after July 21, 1999, the emission of particulate matter from any process shall not exceed an emission standard of 0.1 grain per dry standard cubic foot of exhaust gas, except as provided in 567 – 21.2(455B), 23.1(455B), 23.4(455B) and 567 – Chapter 24.

For sources constructed, modified or reconstructed prior to July 21, 1999, the emission of particulate matter from any process shall not exceed the amount determined from Table I, or amount specified in a permit if based on an emission standard of 0.1 grain per standard cubic foot of exhaust gas or established from standards provided in 23.1(455B) and 23.4(455B).

Authority for Requirement: 567 IAC 23.3(2)"a" (as revised 7/21/1999)

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<sup>1</sup> Pending approval into Iowa's State Implementation Plan (SIP), paragraph 567 IAC 23.3(2)"a" (as revised 7/21/1999) is considered *state enforceable only*.

### Particulate Matter<sup>2</sup>:

The emission of particulate matter from any process shall not exceed the amount determined from Table I, except as provided in 567 — 21.2(455B), 23.1(455B), 23.4(455B) and 567 — Chapter 24. If the director determines that a process complying with the emission rates specified in Table I is causing or will cause air pollution in a specific area of the state, an emission standard of 0.1 grain per standard cubic foot of exhaust gas may be imposed.

Authority for Requirement: 567 IAC 23.3(2)"a" (prior to 7/21/1999)

Fugitive Dust: Attainment and Unclassified Areas - No person shall allow, cause or permit any materials to be handled, transported or stored; or a building, its appurtenances or a construction haul road to be used, constructed, altered repaired or demolished, with the exception of farming operations or dust generated by ordinary travel on unpaved public roads, without taking reasonable precautions to prevent particulate matter in quantities sufficient to create a nuisance, as defined in Iowa Code section 657.1, from becoming airborne. All persons, with the above exceptions, shall take reasonable precautions to prevent the discharge of visible emissions of fugitive dusts beyond the lot line of the property on which the emissions originate. The highway authority shall be responsible for taking corrective action in those cases where said authority has received complaints of or has actual knowledge of dust conditions which require abatement pursuant to this subrule. Reasonable precautions may include, but not limited to, the following procedures.

1. Use, where practical, of water or chemicals for control of dusts in the demolition of existing buildings or structures, construction operations, the grading of roads or the clearing of land.
2. Application of suitable materials, such as but not limited to asphalt, oil, water or chemicals on unpaved roads, material stockpiles, race tracks and other surfaces which can give rise to airborne dusts.
3. Installation and use of containment or control equipment, to enclose or otherwise limit the emissions resulting from the handling and transfer of dusty materials, such as but not limited to grain, fertilizers or limestone.
4. Covering at all times when in motion, open-bodied vehicles transporting materials likely to give rise to airborne dusts.
5. Prompt removal of earth or other material from paved streets or to which earth or other material has been transported by trucking or earth-moving equipment, erosion by water or other means.

Authority for Requirement: 567 IAC 23.3(2)"c"

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### **Compliance Plan**

*The owner/operator shall comply with the applicable requirements listed below. The compliance status is based on information provided by the applicant.*

Unless otherwise noted in Section III of this permit, University of Northern Iowa – Power Plant is in compliance with all applicable requirements and shall continue to comply with all such requirements. For those applicable requirements which become effective during the permit term, University of Northern Iowa – Power Plant shall comply with such requirements in a timely manner.

Authority for Requirement: 567 IAC 22.108(15)

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<sup>2</sup> Paragraph 567 IAC 23.3(2)"a" (prior to 7/21/1999) is the general particulate matter emission standard currently in the Iowa SIP.

### III. Emission Point-Specific Conditions

Facility Name: University of Northern Iowa – Power Plant  
Permit Number: **04-TV-022**

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#### **Emission Point ID Numbers: EP-199-1, EP-199-2, EP-199-3**

##### Associated Equipment

EP	EU	EU Description	Control Equipment	Monitoring Equipment	Raw Material	Rated Capacity
EP-199-1	EU-199-BLR-1	Boiler #1	NA	NA	Natural Gas/ #2 Fuel Oil	83.8 MMBtu/hr
EP-199-2	EU-199-BLR-2	Boiler #2	NA	NA	Natural Gas/ #2 Fuel Oil	83.8 MMBtu/hr
EP-199-3	EU-199-BLR-3	Boiler #3	CE-199-3: Baghouse	NA	Coal/ #2 Fuel Oil	163 MMBtu/hr
	EU-199-BLR-4	Boiler #4	CE-199-4: Baghouse	ME-199-4: SO <sub>2</sub> , NO <sub>x</sub> , Diluent CO <sub>2</sub> , Opacity	Coal/ Petroleum Coke/ Natural Gas	143 MMBtu/hr

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##### Applicable Requirements

##### Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

*The emissions from this emission point shall not exceed the levels specified below.*

##### **EP-199-1; EU-199-BLR-1 and EP-199-2; EU-199-BLR-2**

Pollutant: Opacity

Emission Limits: 40 %

Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter

Emission Limits: 0.6 lb/MMBtu, 28.75 tons/ twelve month rolling period<sup>(1)</sup>

Authority for Requirement: Iowa DNR Construction Permit 89-A-034-S  
567 IAC 23.3(2)"b"

Pollutant: Sulfur Dioxide (SO<sub>2</sub>) (when burning #2 fuel oil)

Emission Limit(s): 2.5 lb/MMBtu

Authority for Requirement: Iowa DNR Construction Permit 78-A-165-S2  
567 IAC 23.3(3)"b"(2)

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<sup>(1)</sup> Based on combined calculated emissions from Boilers 1, 2, 3 and 4. (see equation in Operational Limits and Requirements)

Pollutant: Sulfur Dioxide (SO<sub>2</sub>) (when burning natural gas)  
Emission Limit(s): 500 ppmv  
Authority for Requirement: 567 IAC 23.3(3)"e"

Pollutant: Sulfur Dioxide (SO<sub>2</sub>)  
Emission Limits: 2500 tons per year<sup>(2)</sup>  
Authority for Requirement: Iowa DNR Construction Permit 78-A-165-S2

Pollutant: Nitrogen Oxide (NO<sub>x</sub>)  
Emission Limits: 299.58 tons/ twelve month rolling period<sup>(3)</sup>  
Authority for Requirement: Iowa DNR Construction Permit 89-A-034-S

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**EP-199-3; EU-199-BLR-3**

Pollutant: Opacity  
Emission Limits: 40 %  
Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter  
Emission Limits: 0.07 lb/MMBtu<sup>(4)</sup>  
Authority for Requirement: Iowa DNR Construction Permit 78-A-165-S2

Pollutant: Particulate Matter  
Emission Limit(s): 28.75 tons/twelve month rolling period<sup>(5)</sup>  
Authority for Requirement: Iowa DNR Construction Permit 89-A-034-S

Pollutant: Sulfur Dioxide (SO<sub>2</sub>) (when burning Coal)  
Emission Limits: 6 lb/MMBtu  
Authority for Requirement: Iowa DNR Construction Permit 78-A-165-S2  
567 IAC 23.3(3)"a"(3)

Pollutant: Sulfur Dioxide (SO<sub>2</sub>) (when burning #2 fuel oil)  
Emission Limit(s): 2.5 lb/MMBtu  
Authority for Requirement: Iowa DNR Construction Permit 78-A-165-S2  
567 IAC 23.3(3)"b"(2)

Pollutant: Sulfur Dioxide (SO<sub>2</sub>)  
Emission Limits: 2500 tons per year<sup>(2)</sup>  
Authority for Requirement: Iowa DNR Construction Permit 78-A-165-S2

Pollutant: Nitrogen Oxide (NO<sub>x</sub>)  
Emission Limits: 299.58 tons/ twelve month rolling period<sup>(3)</sup>  
Authority for Requirement: Iowa DNR Construction Permit 89-A-034-S

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<sup>(2)</sup> Total emissions from Boilers 1, 2, and 3.

<sup>(3)</sup> Based on combined calculated emissions from Boilers 1, 2, 3 and 4. (see equation in Operational Limits and Requirements)

<sup>(4)</sup> Calculated as the average of three (3) one-hour tests.

<sup>(5)</sup> Based on combined calculated emissions from Boilers 1, 2, 3 and 4. (see equation in Operational Limits and Requirements)



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**EP-199-3; EU-199-BLR-4**

Pollutant: Opacity

Emission Limits: 20 %<sup>(6)</sup>

Authority for Requirement: Iowa DNR Construction Permit 89-A-034-S  
567 IAC 23.1(2)"ccc"  
40 CFR Part 60 Subpart Db

Pollutant: Particulate Matter

Emission Limits: 0.03 lb/MMBtu, 28.75 tons/ twelve month rolling period<sup>(7)</sup>

Authority for Requirement: Iowa DNR Construction Permit 89-A-034-S

Pollutant: Sulfur Dioxide (SO<sub>2</sub>)

Emission Limits: 10% of the potential SO<sub>2</sub> emissions based on the sulfur content of the fuel  
and/or 1.2 lb/MMBtu heat input whichever is less

Authority for Requirement: Iowa DNR Construction Permit 89-A-034-S

Pollutant: Nitrogen Oxide (NO<sub>x</sub>)

Emission Limits: 0.40 lb/MMBtu, 299.58 tons/ twelve month rolling period<sup>(8)</sup>

Authority for Requirement: Iowa DNR Construction Permit 89-A-034-S

Pollutant: Carbon Monoxide

Emission Limits: 200 ppm, 0.158 lb/MMBtu

Authority for Requirement: Iowa DNR Construction Permit 89-A-034-S

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<sup>(6)</sup> 6 minute average except for one 6-minute period per hour of not more than 27 percent.

<sup>(7)</sup> Based on combined calculated emissions from Boilers 1, 2, 3 and 4. (see equation in Operational Limits and Requirements)

<sup>(8)</sup> Based on combined calculated emissions from Boilers 1, 2, 3 and 4. (see equation in Operational Limits and Requirements)

## **Operational Limits & Requirements**

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

### **All Emission Units**

#### **Process throughput:**

1. Twelve month rolling period facility particulate matter emissions shall be calculated according to the following equation:

$$\text{Tons PM/twelve month rolling period} = 0.0098W + 0.0036X + 0.048Y + 0.020Z$$

where, W= millions of lbs of steam produced per twelve month rolling period by Units No. 1 & 2 when burning number 2 fuel oil  
X= millions of lbs of steam produced per twelve month rolling period by Units No. 1 & 2 when burning natural gas  
Y= millions of lbs of steam produced per twelve month rolling period by Unit No. 3  
Z= millions of lbs of steam produced per twelve month rolling period by Unit No. 4

2. Annual facility NO<sub>x</sub> emissions shall be calculated according to the following equation:

$$\text{Tons NO}_x / \text{twelve month rolling period} = 0.0969X_{1,2} + 0.494Y_3 + 0.272Z_4$$

where, X<sub>1,2</sub> = millions of lbs of steam produced by units 1 & 2  
Y<sub>3</sub> = millions of lbs of steam produced by unit 3  
Z<sub>4</sub> = millions of lbs of steam produced by unit 4

Authority for Requirement: Iowa DNR Construction Permit 89-A-034-S

#### **Reporting & Record keeping:**

*The university shall retain and summarize the following information on a monthly basis for each boiler when operated and shall be kept onsite for a minimum of five (5) years:*

1. Recordkeeping of steam production and fuels consumed adequate for demonstrating compliance shall be kept on a thirty-six month rolling period basis. An exceedance or predicted exceedance shall be reported to the Iowa DNR within ten (10) days of occurrence.

Authority for Requirement: Iowa DNR Construction Permit 89-A-034-S

2. Daily steam production, type and quantity of fuel burned, and the sulfur and Btu content of each fuel burned. This information shall be made available to representatives of the IDNR upon request. An annual report summarizing the recorded information and reporting the annual sulfur dioxide emissions shall be submitted to the IDNR no later than January 31<sup>st</sup> of each succeeding year.

Authority for Requirement: Iowa DNR Construction Permit 78-A-165-S2

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### **Emission Units EU-199-BLR-1 and EU-199-BLR-2**

#### **Process throughput:**

- Only natural gas or #2 fuel oil shall be used in these units.

Authority for Requirement: Iowa DNR Construction Permit 89-A-034-S

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**Emission Units EU-199-BLR-1, EU-199-BLR-2, and EU-199-BLR-3****Process throughput:**

- No person shall allow, cause or permit the combustion of number 1 or number 2 fuel oil exceeding a sulfur content of 0.5 percent by weight.

Authority for Requirement: 567 IAC 23.3(3)"b"(1)

**Reporting & Record keeping:**

*The following records shall be maintained on-site for five (5) years and available for inspection upon request by representatives of the Department of Natural Resources:*

- The facility shall monitor the percent of sulfur by weight in the fuel oil as delivered. The documentation may be vendor supplied or facility generated.

Authority for Requirement: 567 IAC 22.108(3)

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**New Source Performance Standards (NSPS) Requirements****Terms and Conditions:**

Boiler #4 shall comply with all applicable requirements of 40 CFR 60 Subpart Db – Standards of Performance for Industrial-Commercial-Institutional Steam Generating Units and Subpart A - General Provisions. (Note: citations are consistent with those in the 40 CFR).

(If there is a discrepancy between other permit conditions as stated above and the applicable NSPS, the more restrictive requirement takes precedence.)

**Subpart Db****§ 60.42b Standard for Sulfur Dioxide.**

(a) Except as provided in paragraphs (b), (c), (d), or (j) of this section, on and after the date on which the performance test is completed or required to be completed under § 60.8 of this part, whichever date comes first, no owner or operator of an affected facility that combusts coal or oil shall cause to be discharged into the atmosphere any gases that contain sulfur dioxide in excess of 10 percent (0.10) of the potential sulfur dioxide emission rate (90 percent reduction) and that contain sulfur dioxide in excess of the emission limit determined according to the following formula:

$$E_s = (K_a H_a + K_b H_b) / (H_a + H_b)$$

where:

$E_s$  is the sulfur dioxide emission limit, in ng/J or lb/million Btu heat input,

$K_a$  is 520 ng/J (or 1.2 lb/million Btu),

$K_b$  is 340 ng/J (or 0.80 lb/million Btu),

$H_a$  is the heat input from the combustion of coal, in J (million Btu),

$H_b$  is the heat input from the combustion of oil, in J (million Btu).

Only the heat input supplied to the affected facility from the combustion of coal and oil is counted under this section. No credit is provided for the heat input to the affected facility from the combustion of natural gas, wood, municipal-type solid waste, or other fuels or heat input to

the affected facility from exhaust gases from another source, such as gas turbines, internal combustion engines, kilns, etc.

(e) Except as provided in paragraph (f) of this section, compliance with the emission limits, fuel oil sulfur limits, and/or percent reduction requirements under this section are determined on a 30-day rolling average basis.

(g) Except as provided in paragraph (i) of this section, the sulfur dioxide emission limits and percent reduction requirements under this section apply at all times, including periods of startup, shutdown, and malfunction.

**§ 60.43b Standard for Particulate Matter.**

(a) On and after the date on which the initial performance test is completed or is required to be completed under § 60.8 of this part, whichever comes first, no owner or operator of an affected facility which combusts coal or combusts mixtures of coal with other fuels, shall cause to be discharged into the atmosphere from that affected facility any gases that contain particulate matter in excess of the following emission limits:

(1) 22 ng/J (0.05 lb/million Btu) heat input

(e) For the purposes of this section, the annual capacity factor is determined by dividing the actual heat input to the steam generating unit during the calendar year from the combustion of coal, wood, or municipal-type solid waste, and other fuels, as applicable, by the potential heat input to the steam generating unit if the steam generating unit had been operated for 8,760 hours at the maximum design heat input capacity.

(f) On and after the date on which the initial performance test is completed or is required to be completed under 60.8 of this part, whichever date comes first, no owner or operator of an affected facility that combusts coal, oil, wood, or mixtures of these fuels with any other fuels shall cause to be discharged into the atmosphere any gases that exhibit greater than 20 percent opacity (6-minute average), except for one 6-minute period per hour of not more than 27 percent opacity.

(g) The particulate matter and opacity standards apply at all times, except during periods of startup, shutdown or malfunction.

**§ 60.44b Standard for Nitrogen Oxides.**

(a) Except as provided under paragraphs (k) and (l) of this section, on and after the date on which the initial performance test is completed or is required to be completed under § 60.8 of this part, whichever date comes first, no owner or operator of an affected facility that is subject to the provisions of this section and that combusts only coal, oil, or natural gas shall cause to be discharged into the atmosphere from that affected facility any gases that contain nitrogen oxides (expressed as NO<sub>2</sub>) in excess of the following emission limits:

Fuel/Steam generating unit type	Nitrogen oxide emission limits ng/J (lb/million Btu) (expressed as NO <sub>2</sub> ) heat input
(1) Natural gas and distillate oil, except (4):	
(i) Low heat release rate.....	43 (0.10)
(ii) High heat release rate.....	86 (0.20)
(2) Residual oil:	
(i) Low heat release rate.....	130 (0.30)
(ii) High heat release rate.....	170 (0.40)
(3) Coal:	
(i) Mass-feed stoker.....	210 (0.50)
(ii) Spreader stoker and fluidized bed combustion.....	260 (0.60)
(iii) Pulverized coal.....	300 (0.70)
(iv) Lignite, except (v).....	260 (0.60)
(v) Lignite mined in North Dakota, South Dakota, or Montana and combusted in a slag tap furnace.....	340 (0.80)
(vi) Coal-derived synthetic fuels.....	210 (0.50)
(4) Duct burner used in a combined cycle system:	
(i) Natural gas and distillate oil.....	86 (0.20)
(ii) Residual oil.....	170 (0.40)

(h) For purposes of paragraph (i) of this section, the nitrogen oxide standards under this section apply at all times including periods of startup, shutdown, or malfunction.

(i) Except as provided under paragraph (j) of this section, compliance with the emission limits under this section is determined on a 30-day rolling average basis.

**§ 60.47b Emission Monitoring for Sulfur Dioxide.**

(a) Except as provided in paragraphs (b) and (f) of this section, the owner or operator of an affected facility subject to the sulfur dioxide standards under § 60.42b shall install, calibrate, maintain, and operate continuous emission monitoring systems (CEMS) for measuring sulfur dioxide concentrations and either oxygen (O<sub>2</sub>) or carbon dioxide (CO<sub>2</sub>) concentrations and shall record the output of the systems. The sulfur dioxide and either oxygen or carbon dioxide concentrations shall both be monitored at the inlet and outlet of the sulfur dioxide control device.

(c) The owner or operator of an affected facility shall obtain emission data for at least 75 percent of the operating hours in at least 22 out of 30 successive boiler operating days. If this minimum data requirement is not met with a single monitoring system, the owner or operator of the affected facility shall supplement the emission data with data collected with other monitoring systems as approved by the Administrator or the reference methods and procedures as described in paragraph (b) of this section.

(d) The 1-hour average sulfur dioxide emission rates measured by the CEMS required by paragraph (a) of this section and required under § 60.13(h) is expressed in ng/J or lb/million Btu heat input and is used to calculate the average emission rates under § 60.42b. Each 1-hour average sulfur dioxide emission rate must be based on more than 30 minutes of steam generating unit operation and include at least 2 data points with each representing a 15-minute period. Hourly sulfur dioxide emission rates are not calculated if the affected facility is operated less than 30 minutes in a 1-hour period and are not counted toward determination of a steam generating unit operating day.

(e) The procedures under § 60.13 shall be followed for installation, evaluation, and operation of the CEMS.

(1) All CEMS shall be operated in accordance with the applicable procedures under Performance Specifications 1, 2, and 3 (appendix B).

(2) Quarterly accuracy determinations and daily calibration drift tests shall be performed in accordance with Procedure 1 (appendix F).

(3) For affected facilities combusting coal or oil, alone or in combination with other fuels, the span value of the sulfur dioxide CEMS at the inlet to the sulfur dioxide control device is 125 percent of the maximum estimated hourly potential sulfur dioxide emissions of the fuel combusted, and the span value of the CEMS at the outlet to the sulfur dioxide control device is 50 percent of the maximum estimated hourly potential sulfur dioxide emissions of the fuel combusted.

#### **§ 60.48b Emission Monitoring for Particulate Matter and Nitrogen Oxides.**

(a) The owner or operator of an affected facility subject to the opacity standard under § 60.43b shall install, calibrate, maintain, and operate a continuous monitoring system for measuring the opacity of emissions discharged to the atmosphere and record the output of the system.

(b) Except as provided under paragraphs (g), (h), and (i) of this section, the owner or operator of an affected facility shall comply with either paragraphs (b)(1) or (b)(2) of this section.

(1) Install, calibrate, maintain, and operate a continuous monitoring system, and record the output of the system, for measuring nitrogen oxides emissions discharged to the atmosphere

(c) The continuous monitoring systems required under paragraph (b) of this section shall be operated and data recorded during all periods of operation of the affected facility except for continuous monitoring system breakdowns and repairs. Data is recorded during calibration checks, and zero and span adjustments.

(d) The 1-hour average nitrogen oxides emission rates measured by the continuous nitrogen oxides monitor required by paragraph (b) of this section and required under § 60.13(h) shall be expressed in ng/J or lb/million Btu heat input and shall be used to calculate the average emission

rates under § 60.44b. The 1-hour averages shall be calculated using the data points required under § 60.13(b). At least 2 data points must be used to calculate each 1-hour average.

(e) The procedures under § 60.13 shall be followed for installation, evaluation, and operation of the continuous monitoring systems.

(2) For affected facilities combusting coal, oil, or natural gas, the span value for nitrogen oxides is determined as follows:

Fuel	Span values for nitrogen oxides (PPM)
Natural gas.....	500
Oil.....	500
Coal.....	1,000
Mixtures.....	$500(x+y)+1,000z$

where:

x is the fraction of total heat input derived from natural gas,

y is the fraction of total heat input derived from oil, and

z is the fraction of total heat input derived from coal.

(3) All span values computed under paragraph (e)(2) of this section for combusting mixtures of regulated fuels are rounded to the nearest 500 ppm.

(f) When nitrogen oxides emission data are not obtained because of continuous monitoring system breakdowns, repairs, calibration checks and zero and span adjustments, emission data will be obtained by using standby monitoring systems, Method 7, Method 7A, or other approved reference methods to provide emission data for a minimum of 75 percent of the operating hours in each steam generating unit operating day, in at least 22 out of 30 successive steam generating unit operating days.

#### **§ 60.49b Reporting and Recordkeeping Requirements.**

(f) For facilities subject to the opacity standard under § 60.43b, the owner or operator shall maintain records of opacity.

(g) Except as provided under paragraph (p) of this section, the owner or operator of an affected facility subject to the nitrogen oxides standards under § 60.44b shall maintain records of the following information for each steam generating unit operating day:

(1) Calendar date.

(2) The average hourly nitrogen oxides emission rates (expressed as NO<sub>2</sub>) (ng/J or lb/million Btu heat input) measured or predicted.

(3) The 30-day average nitrogen oxides emission rates (ng/J or lb/million Btu heat input) calculated at the end of each steam generating unit operating day from the measured or predicted hourly nitrogen oxide emission rates for the preceding 30 steam generating unit operating days.

(4) Identification of the steam generating unit operating days when the calculated 30-day average nitrogen oxides emission rates are in excess of the nitrogen oxides emissions

standards under § 60.44b, with the reasons for such excess emissions as well as a description of corrective actions taken.

(5) Identification of the steam generating unit operating days for which pollutant data have not been obtained, including reasons for not obtaining sufficient data and a description of corrective actions taken.

(6) Identification of the times when emission data have been excluded from the calculation of average emission rates and the reasons for excluding data.

(7) Identification of "F" factor used for calculations, method of determination, and type of fuel combusted.

(8) Identification of the times when the pollutant concentration exceeded full span of the continuous monitoring system.

(9) Description of any modifications to the continuous monitoring system that could affect the ability of the continuous monitoring system to comply with Performance Specification 2 or 3.

(10) Results of daily CEMS drift tests and quarterly accuracy assessments as required under appendix F, Procedure 1.

(h) The owner or operator of any affected facility in any category listed in paragraphs (h)(1) or (2) of this section is required to submit excess emission reports for any calendar quarter during which there are excess emissions from the affected facility. If there are no excess emissions during the calendar quarter, the owner or operator shall submit a report semiannually stating that no excess emissions occurred during the semiannual reporting period.

(1) Any affected facility subject to the opacity standards under § 60.43b(e) or to the operating parameter monitoring requirements under § 60.13(i)(1).

(3) For the purpose of § 60.43b, excess emissions are defined as all 6-minute periods during which the average opacity exceeds the opacity standards under § 60.43b(f).

(4) For purposes of § 60.48b(g)(1), excess emissions are defined as any calculated 30-day rolling average nitrogen oxides emission rate, as determined under § 60.46b(e), which exceeds the applicable emission limits in § 60.44b.

(i) The owner or operator of any affected facility subject to the continuous monitoring requirements for nitrogen oxides under § 60.48(b) shall submit a quarterly report containing the information recorded under paragraph (g) of this section. All quarterly reports shall be postmarked by the 30th day following the end of each calendar quarter.

(j) The owner or operator of any affected facility subject to the sulfur dioxide standards under § 60.42b shall submit written reports to the Administrator for every calendar quarter. All quarterly reports shall be postmarked by the 30th day following the end of each calendar quarter.

(k) For each affected facility subject to the compliance and performance testing requirements of § 60.45b and the reporting requirement in paragraph (j) of this section, the following information shall be reported to the Administrator:

(1) Calendar dates covered in the reporting period.

(2) Each 30-day average sulfur dioxide emission rate (ng/J or lb/million Btu heat input) measured during the reporting period, ending with the last 30-day period in the quarter; reasons for noncompliance with the emission standards; and a description of corrective actions taken.



- (3) Each 30-day average percent reduction in sulfur dioxide emissions calculated during the reporting period, ending with the last 30-day period in the quarter; reasons for noncompliance with the emission standards; and a description of corrective actions taken.
- (4) Identification of the steam generating unit operating days that coal or oil was combusted and for which sulfur dioxide or diluent (oxygen or carbon dioxide) data have not been obtained by an approved method for at least 75 percent of the operating hours in the steam generating unit operating day; justification for not obtaining sufficient data; and description of corrective action taken.
- (5) Identification of the times when emissions data have been excluded from the calculation of average emission rates; justification for excluding data; and description of corrective action taken if data have been excluded for periods other than those during which coal or oil were not combusted in the steam generating unit.
- (6) Identification of "F" factor used for calculations, method of determination, and type of fuel combusted.
- (7) Identification of times when hourly averages have been obtained based on manual sampling methods.
- (8) Identification of the times when the pollutant concentration exceeded full span of the CEMS.
- (9) Description of any modifications to the CEMS that could affect the ability of the CEMS to comply with Performance Specification 2 or 3.
- (10) Results of daily CEMS drift tests and quarterly accuracy assessments as required under appendix F, Procedure 1.
- (11) The annual capacity factor of each fired as provided under paragraph (d) of this section.

(m) For each affected facility subject to the sulfur dioxide standards under § 60.42b for which the minimum amount of data required under § 60.47b(f) were not obtained during a calendar quarter, the following information is reported to the Administrator in addition to that required under paragraph (k) of this section:

- (1) The number of hourly averages available for outlet emission rates and inlet emission rates.
- (2) The standard deviation of hourly averages for outlet emission rates and inlet emission rates, as determined in Method 19, section 7.
- (3) The lower confidence limit for the mean outlet emission rate and the upper confidence limit for the mean inlet emission rate, as calculated in Method 19, section 7.
- (4) The ratio of the lower confidence limit for the mean outlet emission rate and the allowable emission rate, as determined in Method 19, section 7.

(o) All records required under this section shall be maintained by the owner or operator of the affected facility for a period of 5 years following the date of such record.

(v) The owner or operator of an affected facility may submit electronic quarterly reports for SO<sub>2</sub> and/or NO<sub>x</sub> and/or opacity in lieu of submitting the written reports required under paragraphs (h), (i), (j), (k) or (l) of this section. The format of each quarterly electronic report shall be coordinated with the permitting authority. The electronic report(s) shall be submitted no later than 30 days after the end of the calendar quarter and shall be accompanied by a certification statement from the owner or operator, indicating whether compliance with the applicable emission standards and minimum data requirements of this subpart was achieved during the reporting period. Before submitting reports in the electronic format, the owner or operator shall

coordinate with the permitting authority to obtain their agreement to submit reports in this alternative format.

(w) The reporting period for the reports required under this subpart is each 6 month period. All reports shall be submitted to the Administrator and shall be postmarked by the 30th day following the end of the reporting period.

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### Subpart A

#### **Sec. 60.11 Compliance with Standards and Maintenance Requirements.**

- (d) At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any affected facility including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Administrator which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source.

#### **Sec. 60.12 Circumvention.**

No owner or operator subject to the provisions of this part shall build, erect, install, or use any article, machine, equipment or process, the use of which conceals an emission which would otherwise constitute a violation of an applicable standard. Such concealment includes, but is not limited to, the use of gaseous dilutents to achieve compliance with an opacity standard or with a standard which is based on the concentration of a pollutant in the gases discharged to the atmosphere.

Authority for Requirement: 40 CFR 60 Parts A and Db  
567 IAC 23.1(2)"ccc"

40 CFR Part 63 Subpart DDDDD "National Emissions Standards for Hazardous Air Pollutant for Industrial, Commercial, and Institutional Boilers and Process Heaters".

- Boilers 1 and 2 are affected sources under this Subpart. According to Sec. 63.7506(b), existing "large gaseous fuel" and existing "large liquid fuel" units are only subject to the initial notification requirements in Sec. 63.9(b). As specified in Sec. 63.7545(b), an initial notification must be submitted no later than 120 days after November 12, 2004 (March 12, 2005). The initial notification must include the information listed in Sec. 63.7545(b)(1) and (b)(2), as applicable.
- Boilers 3 and 4 are affected boilers as defined by this Subpart. Per the definitions listed in Sec. 63.7575, these units fall into the existing "large solid fuel subcategory." The permittee shall comply with this subpart no later than September 13, 2007. The permittee shall also meet the notification requirements in Sec. 63.7545 according to the schedule in Sec. 63.7545 and in Subpart A of 40 CFR Part 63. (Note: Some of the notifications must be submitted before compliance with the emission limits and work practice standards are required.)

Authority for Requirement: 40 CFR Part 63 Subpart DDDDD (see Appendix A for rule text)

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Stack Testing:**

Boiler #1

Pollutant - NO<sub>x</sub>

Stack Test to be Completed by – within two years of permit issuance.

Test Method – 40 CFR 60, Appendix A, Method 7E

Authority for Requirement – 567 IAC 22.108(3)

Boiler #2

Pollutant - NO<sub>x</sub>

Stack Test to be Completed by – within two years of permit issuance.

Test Method – 40 CFR 60, Appendix A, Method 7E

Authority for Requirement – 567 IAC 22.108(3)

Boiler #3

Pollutant - PM

1st Stack Test to be Completed by – Within 1 year from permit issuance

2nd Stack Test to be Completed between – 2.5 years and 3.5 years from permit issuance.

Test Method – Iowa Compliance Sampling Manual Method 5

Authority for Requirement – 567 IAC 22.108(3)

Pollutant – SO<sub>2</sub>

Stack Test to be Completed by – within two years of permit issuance.

Test Method – 40 CFR 60, Appendix A, Method 6C

Authority for Requirement – 567 IAC 22.108(3)

Pollutant - NO<sub>x</sub>

Stack Test to be Completed by – within two years of permit issuance.

Test Method – 40 CFR 60, Appendix A, Method 7E

Authority for Requirement – 567 IAC 22.108(3)

Boiler #4

Pollutant - PM

1st Stack Test to be Completed by – Within 1 year from permit issuance

2nd Stack Test to be Completed between – 2.5 years and 3.5 years from permit issuance.

Test Method – Iowa Compliance Sampling Manual Method 5

Authority for Requirement – 567 IAC 22.108(3)

Pollutant – CO

Stack Test to be Completed by – within two years from permit issuance.

Test Method – 40 CFR 60, Appendix A, Method 10

Authority for Requirement – 567 IAC 22.108.(3)

**Continuous Emissions Monitoring:**

Pollutant - Opacity

Operational Specifications - 40 CFR Part 60 Subpart Db

Date of Initial System Calibration and Quality Assurance - February 1, 1991

Ongoing System Calibration/Quality Assurance –As found in 40 CFR Part 60 Subpart Db

Reporting & Record keeping – As found in 40 CFR Part 60 Subpart Db. Submit all reports and petitions required by 40 CFR 60 to the Iowa DNR in order to demonstrate compliance with continuous emission monitoring and the 20% opacity (visible emissions) limit.

Authority for Requirement - Iowa DNR Construction Permit 89-A-34-S

40 CFR 60 Subpart Db

567 IAC 23.1(2)"ccc"

Pollutant – SO<sub>2</sub>

Operational Specifications - 40 CFR Part 60 Subpart Db

Date of Initial System Calibration and Quality Assurance – February 1, 1991

Ongoing System Calibration/Quality Assurance –As found in 40 CFR Part 60 Subpart Db

Reporting & Record keeping – As found in 40 CFR Part 60 Subpart Db. Submit all reports and petitions required by 40 CFR 60 to the Iowa DNR in order to demonstrate compliance with the SO<sub>2</sub> emission limit for boiler 4.

Authority for Requirement - Iowa DNR Construction Permit 89-A-34-S

40 CFR 60 Subpart Db

567 IAC 23.1(2)"ccc"

Pollutant - NO<sub>x</sub>  
Operational Specifications - 40 CFR Part 60 Subpart Db  
Date of Initial System Calibration and Quality Assurance - February 1, 1991  
Ongoing System Calibration/Quality Assurance – As found in 40 CFR Part 60 Subpart Db  
Reporting & Record keeping – As found in 40 CFR Part 60 Subpart Db. Submit all reports and petitions required by 40 CFR 60 to the Iowa DNR in order to demonstrate compliance with the NO<sub>x</sub> emission limit for boiler 4.  
Authority for Requirement - Iowa DNR Construction Permit 89-A-34-S  
40 CFR 60 Subpart Db  
567 IAC 23.1(2)"ccc"

**Other Parameters:**

Pollutant – Diluent Carbon Dioxide (CO<sub>2</sub>)  
Operational Specifications - 40 CFR Part 60 Subpart Db  
Initial System Calibration/Quality Assurance – 2/1/1991  
Ongoing System Calibration/Quality Assurance - 40 CFR Part 60 Subpart Db  
Reporting & Record keeping - 40 CFR Part 60. Submit all reports and petitions required by 40 CFR 60 Subpart Db to the Iowa DNR in order to demonstrate compliance with continuous emission monitoring.  
Authority for Requirement - Iowa DNR Construction Permit 89-A-34-S  
40 CFR 60 Subpart Db  
567 IAC 23.1(2)"ccc"

*The owner of this equipment or the owner's authorized agent shall provide written notice to the Director, not less than 30 days before a required stack test or performance evaluation of a continuous emission monitor. Results of the test shall be submitted in writing to the Director in the form of a comprehensive report within 6 weeks of the completion of the testing. 567 IAC 25.1(7)*

**Agency Approved Operation & Maintenance Plan Required?** Yes ☒ No ☐  
*Required for CE-199-3 and CE-199-4*

**Facility Maintained Operation & Maintenance Plan Required?** Yes ☐ No ☒

**Compliance Assurance Monitoring (CAM) Plan Required?** Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)

## **Baghouse Agency Operation & Maintenance Plan**

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Facility: University of Northern Iowa Power Plant

EQ Number: 92-5192

Emission Unit: EU-199-BLR-3 Boiler 3

Emission Point: EP-199-3 Boiler 3 and 4 Smokestack

Control Equipment: CE-199-3 Baghouse (Reverse air and shaker)

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### **Monitoring Guidelines**

The University of Northern Iowa Power Plant is committed to taking timely corrective action during periods of excursion where the indicators are out of range. A corrective action may include an investigation of the reason for the excursion, evaluation of the situation and necessary follow-up action to return operation to normal, or to restore the indicator to normal range.

An excursion does not necessarily indicate a violation of an applicable requirement. If the corrective action measures fail to return the indicators to the appropriate range, the facility will report the exceedance to the department and conduct source testing within 90 days of the exceedance to demonstrate compliance with applicable requirements. If the test demonstrates compliance with emission limits then new indicator ranges must be set for monitoring and the new ranges must be incorporated in the operating permit. If the test demonstrates noncompliance with emission limits, then the facility, within 60 days, proposes a schedule to implement corrective action to bring the source into compliance and demonstrate compliance.

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### **MONITORING METHODS AND CORRECTIVE ACTION**

#### **General**

Periodic Monitoring is not required during periods of time greater than one day in which Boiler 3 does not operate.

#### **Routine Operations**

Daily baghouse operating requirements include monitoring and evaluation of various parameters, recordkeeping, preventative maintenance, and the appropriate response to any malfunctions. Fly ash collected by the baghouse is removed from hoppers on the bottom of the baghouse by a pneumatic ash conveying system.

#### **Preventative Maintenance**

The power plant uses a computerized maintenance management system (CMMS) to schedule all preventive maintenance tasks and track corrective maintenance history. The following preventative maintenance tasks will be programmed into the CMMS and work orders generated for performing these maintenance tasks.

#### **Weekly**

- Inspect differential pressure across the bags, for each of the 6 compartments in the baghouse. Confirm pressure is within the manufacturer's recommended operating range.
- Inspect reverse air fan, motor, valves and duct work for proper operation.
- Inspect hopper gates and piping for signs of jamming, leaks, wear or broken parts.

#### **Monthly**

- Check cleaning sequence of the baghouse
- Check operation of all inlet and outlet dampers
- Check the hoppers function and performance

#### **Annually**

- Inspect baghouse compartments during annual outage.

### **Equipment Monitoring Methods**

Performance of the baghouse may be monitored by observing differential pressure readings on the boiler #3 baghouse panel. Additionally, the status of the on-line cleaning system is available on operator interface screens and a local panel in the boiler room. Alarms are provided on the control system operator interface for high baghouse differential pressure, high baghouse inlet and high baghouse outlet temperatures.

### **Performance Criteria**

Baghouse performance assessments may be accomplished by reviewing the daily operating logs and monitoring boiler 3 operator interfaces. Certain boiler transients produce temporary baghouse differential pressure excursions. Examples include sootblowing operations and rapid changes in boiler load. However, these transients should not produce a noticeable change in opacity.

### **Recordkeeping and Reporting**

Operational records will be kept and maintained at the power plant for a period of five years and will be available for review upon request by the DNR. Records to be kept include:

- Boiler 3 operator logs.
- Preventative and corrective maintenance history will be maintained in the power plant CMMS.
- Reports - Semi-annual reports will be generated that include times and duration of all instances of data recorded that were outside of an indicated performance range. The report will also include a certification that corrective actions were promptly taken or a statement that all readings were within the performance range.
- Submit all reports and petitions required by 40 CFR 60 to the Iowa DNR in order to demonstrate compliance with continuous emission monitoring.
- A spare parts inventory will be maintained at the facility.

### **Quality Control**

The following quality control measures will be implemented in association with the operation of the boiler 3 baghouse:

- All instruments and equipment will be calibrated, maintained, and operated according to manufacturer specifications.
  - Any visible emission in excess of 10 percent, except for one six-minute period per hour of not more than 20 percent, will be reported and corrective action will be taken to correct the problem.

This Operation and Maintenance Plan will be available for review at the power plant.

## **Baghouse Agency Operation & Maintenance Plan**

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Facility: University of Northern Iowa Power Plant

EQ Number: 92-5192

Emission Unit: EU-199-BLR-4 Boiler 4

Emission Point: EP-199-4 Boiler 3 and 4 Smokestack

Control Equipment: CE-199-4 Baghouse (Pulsed Air)

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### **Monitoring Guidelines**

The University of Northern Iowa Power Plant is committed to taking timely corrective action during periods of excursion where the indicators are out of range. A corrective action may include an investigation of the reason for the excursion, evaluation of the situation and necessary follow-up action to return operation to normal, or to restore the indicator to normal range.

An excursion does not necessarily indicate a violation of an applicable requirement. If the corrective action measures fail to return the indicators to the appropriate range, the facility will report the exceedance to the department and conduct source testing within 90 days of the exceedance to demonstrate compliance with applicable requirements. If the test demonstrates compliance with emission limits then new indicator ranges must be set for monitoring and the new ranges must be incorporated in the operating permit. If the test demonstrates noncompliance with emission limits, then the facility, within 60 days, proposes a schedule to implement corrective action to bring the source into compliance and demonstrate compliance.

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## **MONITORING METHODS AND CORRECTIVE ACTION**

### **General**

Periodic Monitoring is not required during periods of time greater than one day in which Boiler 4 does not operate.

### **Routine Operations**

Daily baghouse operating requirements include monitoring and evaluation of various parameters, recordkeeping, preventative maintenance, and the appropriate response to any malfunctions. Fly ash collected by the baghouse is removed from hoppers on the bottom of the baghouse by a pneumatic ash conveying system.

### **Preventative Maintenance**

The power plant uses a computerized maintenance management system (CMMS) to schedule all preventive maintenance tasks and track corrective maintenance history. The following preventative maintenance tasks will be programmed into the CMMS and work orders generated for performing these maintenance tasks.

#### **Weekly**

- Inspect differential pressure across the bags, for each of the 4 compartments in the baghouse. Confirm pressure is within the manufacturer's recommended operating range.
- Inspect compressed air pulsing system for any abnormal conditions.
- Inspect hopper gates and piping for signs of jamming, leaks, wear or broken parts.

#### **Monthly**

- Check cleaning sequence of the baghouse
- Check operation of all inlet and outlet dampers
- Check the hoppers function and performance

#### **Annually**

- Inspect baghouse compartments during annual outage.



### **Equipment Monitoring Methods**

Performance of the baghouse may be monitored by observing differential pressure readings on various operator interface screens for boiler 4. Additionally, the status of the on-line cleaning system is available on a control panel in the control room. Continuous opacity monitoring is recorded in the continuous emissions monitor data acquisitions system (CEMDAS) and displayed on the CEMDAS operator interface. Boiler 4 opacity is also displayed on the control system operator interface screens. Alarms are provided on the control system operator interface for high baghouse differential pressure, high baghouse inlet and high baghouse outlet temperatures, and general baghouse trouble.

### **Performance Criteria**

Baghouse performance assessments may be accomplished by reviewing the CEMDAS operator interface and Boiler 4 daily opacity report and monitoring boiler 4 operator interfaces. Certain boiler transients produce temporary baghouse differential pressure excursions. Examples include sootblowing operations and rapid changes in boiler load. However, these transients should not produce a noticeable change in opacity.

### **Recordkeeping and Reporting**

Operational records will be kept and maintained at the power plant for a period of five years and will be available for review upon request by the DNR. Records to be kept include:

- Boiler 4 CEMDAS daily opacity report.
- Boiler 4 operator logs.
- Preventative and corrective maintenance history will be maintained in the power plant CMMS.
- Reports - Semi-annual reports will be generated that include times and duration of all instances of data recorded that were outside of an indicated performance range. The report will also include a certification that corrective actions were promptly taken or a statement that all readings were within the performance range.
- Submit all reports and petitions required by 40 CFR 60 to the Iowa DNR in order to demonstrate compliance with continuous emission monitoring.
- A spare parts inventory will be maintained at the facility.

### **Quality Control**

The following quality control measures will be implemented in association with the operation of the boiler 4 baghouse:

- All instruments and equipment will be calibrated, maintained, and operated according to manufacturer specifications.
  - Any visible emission in excess of 10 percent, except for one six-minute period per hour of not more than 20 percent, will be reported and corrective action will be taken to correct the problem.

This Operation and Maintenance Plan will be available for review at the power plant.

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**Emission Point ID Number: EP-199-5A****Associated Equipment**

EU	EU Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
EU-199-ASH-5A	#3 Ash System-Conveying	CE-199-5A: Tertiary Bag Filter	Coal Ash	10 tons/hr	78-A-164

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**Applicable Requirements****Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

Pollutant: Opacity

Emission Limit(s): 40 %

Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter

Emission Limit(s): 19.2 lb/hr<sup>(1)</sup>

Authority for Requirement: Iowa DNR Construction Permit 78-A-164

567 IAC 23.3(1)"a"

<sup>(1)</sup> Based on process weight of 10 tons/hr.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Stack Testing:**

Pollutant - PM

Stack Test to be Completed by – Within two years from permit issuance

Test Method – Iowa Compliance Sampling Manual Method 5

Authority for Requirement – 567 IAC 22.108(3)

*The owner of this equipment or the owner's authorized agent shall provide written notice to the Director, not less than 30 days before a required stack test or performance evaluation of a continuous emission monitor. Results of the test shall be submitted in writing to the Director in the form of a comprehensive report within 6 weeks of the completion of the testing. 567 IAC 25.1(7)*

**Agency Approved Operation & Maintenance Plan Required?**

Yes ☒ No ☐

**Facility Maintained Operation & Maintenance Plan Required?**

Yes ☐ No ☒

**Compliance Assurance Monitoring (CAM) Plan Required?**

Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)

## **Baghouse Agency Operation & Maintenance Plan**

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Facility: University of Northern Iowa Power Plant

EQ Number: 92-5192

Emission Unit: EU-199-ASH-5A ASH SYSTEM -CONVEYING

Emission Point: EP-199-ASH-5A

Control Equipment: CE-199-5A Baghouse (Pulsed Air)

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### **Monitoring Guidelines**

The University of Northern Iowa Power Plant is committed to taking timely corrective action during periods of excursion where the indicators are out of range. A corrective action may include an investigation of the reason for the excursion, evaluation of the situation and necessary follow-up action to return operation to normal, or to restore the indicator to normal range.

An excursion does not necessarily indicate a violation of an applicable requirement. If the corrective action measures fail to return the indicators to the appropriate range, the facility will report the exceedance to the department and conduct source testing within 90 days of the exceedance to demonstrate compliance with applicable requirements. If the test demonstrates compliance with emission limits then new indicator ranges must be set for monitoring and the new ranges must be incorporated in the operating permit. If the test demonstrates noncompliance with emission limits, then the facility, within 60 days, proposes a schedule to implement corrective action to bring the source into compliance and demonstrate compliance.

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## **MONITORING METHODS AND CORRECTIVE ACTION**

### **General**

Periodic Monitoring is not required during periods of time greater than one day in which Boiler 3 Ash System does not operate.

### **Routine Operations**

Daily baghouse operating requirements include monitoring and evaluation of various parameters, recordkeeping, preventative maintenance, and the appropriate response to any malfunctions.

### **Preventative Maintenance**

The power plant uses a computerized maintenance management system (CMMS) to schedule all preventive maintenance tasks and track corrective maintenance history. The following preventative maintenance tasks will be programmed into the CMMS and work orders generated for performing these maintenance tasks.

#### **Weekly**

- Inspect differential pressure across the bags. Confirm pressure is within the manufacturer's recommended operating range.
- Inspect compressed air pulsing system for any abnormal conditions.
- Inspect hopper gates and piping for signs of jamming, leaks, wear or broken parts.

#### **Monthly**

- Check cleaning sequence of the baghouse.
- Check operation of all inlet and outlet dampers.
- Check the hoppers function and performance.

#### **Annually**

- Inspect baghouse compartment during annual outage.

**Equipment Monitoring Methods**

Performance of the baghouse may be monitored by observing differential pressure readings at the baghouse. A baghouse leak detection system that provides an alarm is installed in the system. Alarms are provided on the control system operator interface for high baghouse differential pressure, general baghouse trouble and ash system trouble.

**Recordkeeping and Reporting**

Operational records will be kept and maintained at the power plant for a period of five years and will be available for review upon request by the DNR. Records to be kept include:

- Preventative and corrective maintenance history will be maintained in the power plant CMMS.
- Reports - Semi-annual reports will be generated that include times and duration of all instances of data recorded that were outside of an indicated performance range. The report will also include a certification that corrective actions were promptly taken or a statement that all readings were within the performance range.
- Submit all reports and petitions required by 40 CFR 60 to the Iowa DNR in order to demonstrate compliance with continuous emission monitoring.
- A spare parts inventory will be maintained at the facility.

**Quality Control**

The following quality control measures will be implemented in association with the operation of the boiler 3 ash system baghouse:

- All instruments and equipment will be calibrated, maintained, and operated according to manufacturer specifications.
- Any visible emission in excess of 10 percent, except for one six-minute period per hour of not more than 20 percent, will be reported and corrective action will be taken to correct the problem.

This Operation and Maintenance Plan will be available for review at the power plant.

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**Emission Point ID Numbers: EP-199-6A, EP-199-6B, EP-199-7, EP-199-8B****Associated Equipment**

EP	EU	EU Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
EP-199-6A	EU-199-ASH-6A	#4 Ash System-Conveying	CE-199-6A: Baghouse	Coal Ash	12 tons/hr	89-A-038
EP-199-6B	EU-199-ASH-6B	#4 Ash System-Silo Bin Vent	CE-199-6B: Baghouse	Coal Ash	12 tons/hr	89-A-037
EP-199-7	EU-199-LIME-7	#4 Limestone System-Silo Bin Vent	CE-199-7: Baghouse	Limestone	20 tons/hr	89-A-035
EP-199-8B	EU-199-CHS-8B	Coal System-Bunker #3 Silo	CE-199-8B: Baghouse	Coal Dust	120 tons/hr	89-A-036

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**Applicable Requirements****Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from these emission points shall not exceed the levels specified below.*

EP	Opacity	PM	Authority for Requirement
EP-199-6A	0%	0.02 gr/dscf, 1.09 ton/yr	89-A-038, 567 IAC 23.3(2)"d"
EP-199-6B	0%	0.02 gr/dscf, 0.08 ton/yr	89-A-037, 567 IAC 23.3(2)"d"
EP-199-7	0%	0.01 gr/dscf, 0.62 ton/yr	89-A-035, 567 IAC 23.3(2)"d"
EP-199-8B	0%	0.01 gr/dscf, 0.65 ton/yr	89-A-036, 567 IAC 23.3(2)"d"

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Opacity:**

The facility shall check the opacity weekly during a period when the emission unit on this emission point is at or near full capacity and record the reading. Maintain a written record of the observation and any action resulting from the observation for a minimum of five years. The facility shall use EPA Method 9 with a certified smoke reader for the monitoring method.

If an opacity > 0% is observed, this would be a violation and corrective action will be taken as soon as possible, but no later than eight hours from the observation of visible emissions. If weather conditions prevent the observer from conducting an opacity observation, the observer shall note such conditions on the data observation sheet. At least three attempts shall be made to retake opacity readings at approximately 2-hour intervals throughout the day. If all observation attempts for a week have been unsuccessful due to weather, an observation shall be made the next operating day where weather permits.

**Agency Approved Operation & Maintenance Plan Required?** Yes ☐ No ☒

**Facility Maintained Operation & Maintenance Plan Required?** Yes ☒ No ☐  
(Required for CE-199-6A1, CE-199-6A2, CE-199-6B, CE-199-7, and CE-199-8B)

**Compliance Assurance Monitoring (CAM) Plan Required?** Yes ☐ No ☒

*Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.*

*Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.*

*Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.*

Authority for Requirement: 567 IAC 22.108(3)

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## Emission Point ID Number: EP-199-8A

### Associated Equipment

EU	EU Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
EU-199-CHS-8A	Coal System- Plant Coal Handling	CE-199-8A: Baghouse	Coal Dust	100 tons/hr	92-A-656-S

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### Applicable Requirements

#### Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)

*The emissions from this emission point shall not exceed the levels specified below.*

Pollutant: Opacity

Emission Limit(s): 40 %

Authority for Requirement: 567 IAC 23.3(2)"d"

Pollutant: Particulate Matter

Emission Limit(s): 1.01 lb/hr, 4.3 ton/yr

Authority for Requirement: Iowa DNR Construction Permit 92-A-656-S

#### Operational Limits & Requirements

*The owner/operator of this equipment shall comply with the operational limits and requirements listed below.*

Process throughput:

1. This emission unit shall not handle more than 100 tons of coal per hour.

Authority for Requirement: Iowa DNR Construction Permit 92-A-656-S

#### Emission Point Characteristics

*The emission point shall conform to the specifications listed below.*

Stack Height, (ft, from the ground): 74

Stack Opening, (inches): 18.5 x 27.375

Exhaust Flow Rate (scfm): 5,884

Exhaust Temperature (°F): Ambient

Authority for Requirement: Iowa DNR Construction Permit 92-A-656-S

The temperature and flow rate are intended to be representative and characteristic of the design of the permitted emission point. The Department recognizes that the temperature and flow rate may vary with changes in the process and ambient conditions. If it is determined that any of the emission point design characteristics are different than the values stated above, the owner/operator must notify the Department and obtain a permit amendment, if required.



**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?** Yes ☐ No ☒

**Facility Maintained Operation & Maintenance Plan Required?** Yes ☒ No ☐

**Compliance Assurance Monitoring (CAM) Plan Required?** Yes ☐ No ☒

*Facility operation and maintenance plans must be sufficient to yield reliable data from the relevant time period that are representative of the source's compliance with the applicable requirements.*

*Facility operation and maintenance plans are to be developed by the facility within six(6) months of the issuance date of this permit and the data pertaining to the plan maintained on site for at least 5 years. The plan and associated recordkeeping provides documentation of this facility's implementation of its obligation to operate according to good air pollution control practice.*

*Good air pollution control practice is achieved by adoption of quality control standards in the operation and maintenance procedures for air pollution control that are comparable to industry quality control standards for the production processes associated with this emission point.*

Authority for Requirement: 567 IAC 22.108(3)

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**Emission Point ID Numbers: EPF-199-9A, EPF-199-9D****Associated Equipment**

EP	EU	EU Description	Control Equipment	Raw Material	Rated Capacity	Construction Permit
EPF-199-9A	EU-199-COAL-9A	Coal Pile Receiving	NA	Coal	134,904 tons/yr	89-A-039
EPF-199-9D	EU-199-COAL-9D	Coal Pile Reclaim Hopper	NA	Coal	134,904 tons/yr	89-A-040

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**Applicable Requirements****Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from these emission points shall not exceed the levels specified below.*

Pollutant: Opacity

Emission Limit(s): 20%, No Visible Emissions at the Property Line

Authority for Requirement: Iowa DNR Construction Permits 89-A-039 and 89-A-040

567 IAC 23.3(2)"d"

567 IAC 23.3(2)"c"

Pollutant: Particulate Matter (EP-199-9A)

Emission Limit(s): 1.10 ton/yr

Authority for Requirement: Iowa DNR Construction Permit 89-A-039

Pollutant: Particulate Matter (EP-199-9D)

Emission Limit(s): 1.29 ton/yr

Authority for Requirement: Iowa DNR Construction Permit 89-A-040

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?**

Yes ☐ No ☒

**Facility Maintained Operation & Maintenance Plan Required?**

Yes ☐ No ☒

**Compliance Assurance Monitoring (CAM) Plan Required?**

Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)

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**Emission Point ID Numbers: EPF-199-9B, EPF-199-9C****Associated Equipment**

EP	EU	EU Description	Control Equipment	Raw Material	Rated Capacity
EPF-199-9B	EU-199-COAL-9B	Coal Pile Truck Traffic	NA	Vehicle Traffic	0.175 VMT/hr
EPF-199-9C	EU-199-COAL-9C	Coal Pile Front End Loader Traffic	NA	Vehicle Traffic	0.583 VMT/hr

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**Applicable Requirements****Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from these emission points shall not exceed the levels specified below.*

Pollutant: Opacity

Emission Limit(s): No Visible Emissions at the Property Line

Authority for Requirement: Iowa DNR Cover Letter for Project 88-185 dated February 27, 1989  
567 IAC 23.3(2)"c"

Pollutant: Particulate Matter

Emission Limit(s): 2.66 ton/yr

Authority for Requirement: Iowa DNR Cover Letter for Project 88-185 dated February 27, 1989

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?** Yes ☐ No ☒

**Facility Maintained Operation & Maintenance Plan Required?** Yes ☐ No ☒

**Compliance Assurance Monitoring (CAM) Plan Required?** Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)

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**Emission Point ID Numbers: EPF-199-10A, EPF-199-10B, EPF-199-10C****Associated Equipment**

EP	EU	EU Description	Control Equipment	Raw Material	Rated Capacity
EPF-199-10A	EUF-199-COKE-10A	Petroleum Coke Receiving	NA	Petroleum Coke	70,080 tons/yr
EPF-199-10B	EUF-199-COKE-10B	Petroleum Coke Pile	NA	Vehicle Traffic	0.0189 VMT/hr
EPF-199-10C	EUF-199-COKE-10C	Petroleum Coke Reclaim	NA	Petroleum Coke	70,080 tons/yr

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**Applicable Requirements****Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

Pollutant: Fugitive Dust

Emission Limit: No person shall allow, cause or permit any materials to be handled, transported or stored; or a building, its appurtenances or a construction haul road to be used, constructed, altered, repaired or demolished, without taking reasonable precautions to prevent a nuisance. All persons shall take reasonable precautions to prevent the discharge of visible emissions of fugitive dusts beyond the lot line of the property on which the emissions originate.

Authority for Requirement: 567 IAC 23.3(2)"c"

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?** Yes ☐ No ☒

**Facility Maintained Operation & Maintenance Plan Required?** Yes ☐ No ☒

**Compliance Assurance Monitoring (CAM) Plan Required?** Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)

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**Emission Point ID Number: EP-199-11****Associated Equipment**

<b>EU</b>	<b>EU Description</b>	<b>Control Equipment</b>	<b>Raw Material</b>	<b>Rated Capacity</b>
EU-199-AST-11	Fuel Oil Storage Tank	NA	Fuel Oil	474776 gallons

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**Applicable Requirements****Emission Limits (lb./hr, gr./dscf, lb./MMBtu, % opacity, etc.)**

*The emissions from this emission point shall not exceed the levels specified below.*

There are no applicable emission limits for this emission unit at this time.

**Monitoring Requirements**

*The owner/operator of this equipment shall comply with the monitoring requirements listed below.*

**Agency Approved Operation & Maintenance Plan Required?** Yes ☐ No ☒

**Facility Maintained Operation & Maintenance Plan Required?** Yes ☐ No ☒

**Compliance Assurance Monitoring (CAM) Plan Required?** Yes ☐ No ☒

Authority for Requirement: 567 IAC 22.108(3)

## IV. General Conditions

This permit is issued under the authority of the Iowa Code subsection 455B.133(8) and in accordance with 567 Iowa Administrative Code chapter 22.

### G1. Duty to Comply

1. The permittee must comply with all conditions of the Title V permit. Any permit noncompliance constitutes a violation of the Act and is grounds for enforcement action; for a permit termination, revocation and reissuance, or modification; or for denial of a permit renewal application. *567 IAC 22.108(9)"a"*
2. Any compliance schedule shall be supplemental to, and shall not sanction noncompliance with, the applicable requirements on which it is based. *567 IAC 22.105 (2)"h"(3)*
3. Where an applicable requirement of the Act is more stringent than an applicable requirement of regulations promulgated under Title IV of the Act, both provisions shall be enforceable by the administrator and are incorporated into this permit. *567 IAC 22.108 (1)"b"*
4. Unless specified as either "state enforceable only" or "local program enforceable only", all terms and conditions in the permit, including provisions to limit a source's potential to emit, are enforceable by the administrator and citizens under the Act. *567 IAC 22.108 (14)*
5. It shall not be a defense for a permittee, in an enforcement action, that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the permit. *567 IAC 22.108 (9)"b"*

### G2. Permit Expiration

1. Except as provided in 567 IAC 22.104, the expiration of this permit terminates the permittee's right to operate unless a timely and complete application has been submitted for renewal. Any testing required for renewal shall be completed before the application is submitted. *567 IAC 22.116(2)*
2. To be considered timely, the owner, operator, or designated representative (where applicable) of each source required to obtain a Title V permit shall present or mail the Air Quality Bureau, Iowa Department of Natural Resources, Air Quality Bureau, 7900 Hickman Rd, Suite #1, Urbandale, Iowa 50322, two copies (three if your facility is located in Linn or Polk county) of a complete permit application, at least 6 months but not more than 18 months prior to the date of permit expiration. An additional copy must also be sent to EPA Region VII, Attention: Chief of Air Permits, 901 N. 5th St., Kansas City, KS 66101. The application must include all emission points, emission units, air pollution control equipment, and monitoring devices at the facility. All emissions generating activities, including fugitive emissions, must be included. The definition of a complete application is as indicated in 567 IAC 22.105(2). *567 IAC 22.105*

### G3. Certification Requirement for Title V Related Documents

Any application, report, compliance certification or other document submitted pursuant to this permit shall contain certification by a responsible official of truth, accuracy, and completeness. All certifications shall state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate, and complete. *567 IAC 22.107 (4)*

### G4. Annual Compliance Certification

By March 31 of each year, the permittee shall submit compliance certifications for the previous calendar year. The certifications shall include descriptions of means to monitor the compliance status of all emissions sources including emissions limitations, standards, and work practices in accordance with applicable requirements. The certification for a source shall include the identification of each term or condition of the permit that is the basis of the certification; the compliance status; whether compliance was continuous or intermittent; the method(s) used for determining the compliance status of the source, currently and over the reporting period

consistent with all applicable department rules. For sources determined not to be in compliance at the time of compliance certification, a compliance schedule shall be submitted which provides for periodic progress reports, dates for achieving activities, milestones, and an explanation of why any dates were missed and preventive or corrective measures. The compliance certification shall be submitted to the administrator, director, and the appropriate DNR Field office. *567 IAC 22.108 (15)"e"*

#### **G5. Semi-Annual Monitoring Report**

By March 31 and September 30 of each year, the permittee shall submit a report of any monitoring required under this permit for the 6 month periods of July 1 to December 31 and January 1 to June 30, respectively. All instances of deviations from permit requirements must be clearly identified in these reports, and the report must be signed by a responsible official, consistent with *567 IAC 22.107(4)*. The semi-annual monitoring report shall be submitted to the director and the appropriate DNR Field office. *567 IAC 22.108 (5)*

#### **G6. Annual Fee**

1. The permittee is required under subrule *567 IAC 22.106* to pay an annual fee based on the total tons of actual emissions of each regulated air pollutant. Beginning July 1, 1996, Title V operating permit fees will be paid on July 1 of each year. The fee shall be based on emissions for the previous calendar year.
2. The fee amount shall be calculated based on the first 4,000 tons of each regulated air pollutant emitted each year. The fee to be charged per ton of pollutant will be available from the department by June 1 of each year. The Responsible Official will be advised of any change in the annual fee per ton of pollutant.
3. The following forms shall be submitted annually by March 31 documenting actual emissions for the previous calendar year.
  - a. Form 1.0 "Facility Identification";
  - b. Form 4.0 "Emissions unit-actual operations and emissions" for each emission unit;
  - c. Form 5.0 "Title V annual emissions summary/fee"; and
  - d. Part 3 "Application certification."
4. The fee shall be submitted annually by July 1. The fee shall be submitted with the following forms:
  - a. Form 1.0 "Facility Identification";
  - b. Form 5.0 "Title V annual emissions summary/fee";
  - c. Part 3 "Application certification."
5. If there are any changes to the emission calculation form, the department shall make revised forms available to the public by January 1. If revised forms are not available by January 1, forms from the previous year may be used and the year of emissions documented changed. The department shall calculate the total statewide Title V emissions for the prior calendar year and make this information available to the public no later than April 30 of each year.
6. Phase I acid rain affected units under section 404 of the Act shall not be required to pay a fee for emissions which occur during the years 1993 through 1999 inclusive.
7. The fee for a portable emissions unit or stationary source which operates both in Iowa and out of state shall be calculated only for emissions from the source while operating in Iowa.
8. Failure to pay the appropriate Title V fee represents cause for revocation of the Title V permit as indicated in *567 IAC 22.115(1)"d"*.

**G7. Inspection of Premises, Records, Equipment, Methods and Discharges**

Upon presentation of proper credentials and any other documents as may be required by law, the permittee shall allow the director or the director's authorized representative to:

1. Enter upon the permittee's premises where a Title V source is located or emissions-related activity is conducted, or where records must be kept under the conditions of the permit;
2. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit;
3. Inspect, at reasonable times, any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations regulated or required under the permit; and
4. Sample or monitor, at reasonable times, substances or parameters for the purpose of ensuring compliance with the permit or other applicable requirements. *567 IAC 22.108 (15)"b"*

**G8. Duty to Provide Information**

The permittee shall furnish to the director, within a reasonable time, any information that the director may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit or to determine compliance with the permit. Upon request, the permittee also shall furnish to the director copies of records required to be kept by the permit, or for information claimed to be confidential, the permittee shall furnish such records directly to the administrator of EPA along with a claim of confidentiality. *567 IAC 22.108 (9)"e"*

**G9. General Maintenance and Repair Duties**

The owner or operator of any air emission source or control equipment shall:

1. Maintain and operate the equipment or control equipment at all times in a manner consistent with good practice for minimizing emissions.
2. Remedy any cause of excess emissions in an expeditious manner.
3. Minimize the amount and duration of any excess emission to the maximum extent possible during periods of such emissions. These measures may include but not be limited to the use of clean fuels, production cutbacks, or the use of alternate process units or, in the case of utilities, purchase of electrical power until repairs are completed.
4. Schedule, at a minimum, routine maintenance of equipment or control equipment during periods of process shutdowns to the maximum extent possible. *567 IAC 24.2(1)*

**G10. Recordkeeping Requirements for Compliance Monitoring**

1. In addition to any source specific recordkeeping requirements contained in this permit, the permittee shall maintain the following compliance monitoring records, where applicable:
  - a. The date, place and time of sampling or measurements
  - b. The date the analyses were performed.
  - c. The company or entity that performed the analyses.
  - d. The analytical techniques or methods used.
  - e. The results of such analyses; and
  - f. The operating conditions as existing at the time of sampling or measurement.
  - g. The records of quality assurance for continuous compliance monitoring systems (including but not limited to quality control activities, audits and calibration drifts.)
2. The permittee shall retain records of all required compliance monitoring data and support information for a period of at least 5 years from the date of compliance monitoring sample, measurement report or application. Support information includes all calibration and maintenance records and all original strip chart recordings for continuous compliance monitoring, and copies of all reports required by the permit.
3. For any source which in its application identified reasonably anticipated alternative operating scenarios, the permittee shall:
  - a. Comply with all terms and conditions of this permit specific to each alternative scenario.



- b. Maintain a log at the permitted facility of the scenario under which it is operating.
- c. Consider the permit shield, if provided in this permit, to extend to all terms and conditions under each operating scenario. *567 IAC 22.108(4), 567 IAC 22.108(12)*

**G11. Evidence used in establishing that a violation has or is occurring.**

Notwithstanding any other provisions of these rules, any credible evidence may be used for the purpose of establishing whether a person has violated or is in violation of any provisions herein.

1. Information from the use of the following methods is presumptively credible evidence of whether a violation has occurred at a source:
  - a. A monitoring method approved for the source and incorporated in an operating permit pursuant to 567 Chapter 22;
  - b. Compliance test methods specified in 567 Chapter 25; or
  - c. Testing or monitoring methods approved for the source in a construction permit issued pursuant to 567 Chapter 22.
2. The following testing, monitoring or information gathering methods are presumptively credible testing, monitoring, or information gathering methods:
  - a. Any monitoring or testing methods provided in these rules; or
  - b. Other testing, monitoring, or information gathering methods that produce information comparable to that produced by any method in subrule 21.5(1) or this subrule. *567 IAC 21.5(1)-567 IAC 21.5(2)*

**G12. Prevention of Accidental Release: Risk Management Plan Notification and Compliance Certification**

If the permittee is required to develop and register a risk management plan pursuant to section 112(r) of the Act, the permittee shall notify the department of this requirement. The plan shall be filed with all appropriate authorities by the deadline specified by EPA. A certification that this risk management plan is being properly implemented shall be included in the annual compliance certification of this permit. *567 IAC 22.108(6)*

**G13. Hazardous Release**

The permittee must report any situation involving the actual, imminent, or probable release of a hazardous substance into the atmosphere which, because of the quantity, strength and toxicity of the substance, creates an immediate or potential danger to the public health, safety or to the environment. A verbal report shall be made to the department at (515) 281-8694 and to the local police department or the office of the sheriff of the affected county as soon as possible but not later than six hours after the discovery or onset of the condition. This verbal report must be followed up with a written report as indicated in *567 IAC 131.2(2)*. *567 IAC Chapter 131-State Only*

**G14. Excess Emissions and Excess Emissions Reporting Requirements**

1. Excess Emissions. Excess emission during a period of startup, shutdown, or cleaning of control equipment is not a violation of the emission standard if the startup, shutdown or cleaning is accomplished expeditiously and in a manner consistent with good practice for minimizing emissions. Cleaning of control equipment which does not require the shutdown of the process equipment shall be limited to one six-minute period per one-hour period. An incident of excess emission (other than an incident during startup, shutdown or cleaning of control equipment) is a violation. If the owner or operator of a source maintains that the incident of excess emission was due to a malfunction, the owner or operator must show that the conditions which caused the incident of excess emission were not preventable by reasonable maintenance and control measures. Determination of any subsequent enforcement action will be made following review of this report. If excess emissions are occurring, either the control equipment causing the excess emission shall be repaired in an expeditious manner or the process generating the emissions shall be shutdown within a reasonable period of time. An expeditious manner is the time necessary to

determine the cause of the excess emissions and to correct it within a reasonable period of time. A reasonable period of time is eight hours plus the period of time required to shut down the process without damaging the process equipment or control equipment. In the case of an electric utility, a reasonable period of time is eight hours plus the period of time until comparable generating capacity is available to meet consumer demand with the affected unit out of service, unless, the director shall, upon investigation, reasonably determine that continued operation constitutes an unjustifiable environmental hazard and issue an order that such operation is not in the public interest and require a process shutdown to commence immediately.

## 2. Excess Emissions Reporting

a. Oral Reporting of Excess Emissions. An incident of excess emission (other than an incident of excess emission during a period of startup, shutdown, or cleaning) shall be reported to the appropriate field office of the department within eight hours of, or at the start of the first working day following the onset of the incident. The reporting exemption for an incident of excess emission during startup, shutdown or cleaning does not relieve the owner or operator of a source with continuous monitoring equipment of the obligation of submitting reports required in 567-subrule 25.1(6). An oral report of excess emission is not required for a source with operational continuous monitoring equipment (as specified in 567-subrule 25.1(1) if the incident of excess emission continues for less than 30 minutes and does not exceed the applicable visible emission standard by more than 10 percent opacity. The oral report may be made in person or by telephone and shall include as a minimum the following:

- i. The identity of the equipment or source operation from which the excess emission originated and the associated stack or emission point.
- ii. The estimated quantity of the excess emission.
- iii. The time and expected duration of the excess emission.
- iv. The cause of the excess emission.
- v. The steps being taken to remedy the excess emission.
- vi. The steps being taken to limit the excess emission in the interim period.

b. Written Reporting of Excess Emissions. A written report of an incident of excess emission shall be submitted as a follow-up to all required oral reports to the department within seven days of the onset of the upset condition, and shall include as a minimum the following:

- i. The identity of the equipment or source operation point from which the excess emission originated and the associated stack or emission point.
- ii. The estimated quantity of the excess emission.
- iii. The time and duration of the excess emission.
- iv. The cause of the excess emission.
- v. The steps that were taken to remedy and to prevent the recurrence of the incident of excess emission.
- vi. The steps that were taken to limit the excess emission.
- vii. If the owner claims that the excess emission was due to malfunction, documentation to support this claim. 567 IAC 24.1(1)-567 IAC 24.1(4)

3. Emergency Defense for Excess Emissions. For the purposes of this permit, an “emergency” means any situation arising from sudden and reasonably unforeseeable events beyond the control of the source, including acts of God, which requires immediate corrective action to restore normal operation, and that causes the source to exceed a technology-based emission limitation under the permit due to unavoidable increases in emissions attributable to the emergency. An emergency shall not include non-compliance, to the extent caused by improperly designed equipment, lack of preventive maintenance, careless or improper operation or operator error. An

emergency constitutes an affirmative defense to an action brought for non-compliance with technology based limitations if it can be demonstrated through properly signed contemporaneous operating logs or other relevant evidence that:

- a. An emergency occurred and that the permittee can identify the cause(s) of the emergency;
- b. The facility at the time was being properly operated;
- c. During the period of the emergency, the permittee took all reasonable steps to minimize levels of emissions that exceeded the emissions standards or other requirements of the permit; and
- d. The permittee submitted notice of the emergency to the director by certified mail within two working days of the time when the emissions limitations were exceeded due to the emergency. This notice must contain a description of the emergency, any steps taken to mitigate emissions, and corrective actions taken. *567 IAC 22.108(16)*

#### **G15. Permit Deviation Reporting Requirements**

A deviation is any failure to meet a term, condition or applicable requirement in the permit. Reporting requirements for deviations that result in a hazardous release or excess emissions have been indicated above (see G13 and G14). Unless more frequent deviation reporting is specified in the permit, any other deviation shall be documented in the semi-annual monitoring report and the annual compliance certification (see G4 and G5). *567 IAC 22.108(5)"b"*

#### **G16. Notification Requirements for Sources That Become Subject to NSPS and NESHAP Regulations**

During the term of this permit, the permittee must notify the department of any source that becomes subject to a standard or other requirement under 567-subrule 23.1(2) (standards of performance of new stationary sources) or section 111 of the Act; or 567-subrule 23.1(3) (emissions standards for hazardous air pollutants), 567-subrule 23.1(4) (emission standards for hazardous air pollutants for source categories) or section 112 of the Act. This notification shall be submitted in writing to the department pursuant to the notification requirements in 40 CFR Section 60.7, 40 CFR Section 61.07, and/or 40 CFR Section 63.9. *567 IAC 23.1(2), 567 IAC 23.1(3), 567 IAC 23.1(4)*

#### **G17. Requirements for Making Changes to Emission Sources That Do Not Require Title V Permit Modification**

1. Off Permit Changes to a Source. Pursuant to section 502(b)(10) of the CAAA, the permittee may make changes to this installation/facility without revising this permit if:
  - a. The changes are not major modifications under any provision of any program required by section 110 of the Act, modifications under section 111 of the act, modifications under section 112 of the act, or major modifications as defined in 567 IAC Chapter 22.
  - b. The changes do not exceed the emissions allowable under the permit (whether expressed therein as a rate of emissions or in terms of total emissions);
  - c. The changes are not modifications under any provisions of Title I of the Act and the changes do not exceed the emissions allowable under the permit (whether expressed therein as a rate of emissions or as total emissions);
  - d. The changes are not subject to any requirement under Title IV of the Act.
  - e. The changes comply with all applicable requirements.
  - f. For such a change, the permitted source provides to the department and the administrator by certified mail, at least 30 days in advance of the proposed change, a written notification, including the following, which must be attached to the permit by the source, the department and the administrator:
    - i. A brief description of the change within the permitted facility,
    - ii. The date on which the change will occur,

- iii. Any change in emission as a result of that change,
  - iv. The pollutants emitted subject to the emissions trade
  - v. If the emissions trading provisions of the state implementation plan are invoked, then Title V permit requirements with which the source shall comply; a description of how the emissions increases and decreases will comply with the terms and conditions of the Title V permit.
  - vi. A description of the trading of emissions increases and decreases for the purpose of complying with a federally enforceable emissions cap as specified in and in compliance with the Title V permit; and
  - vii. Any permit term or condition no longer applicable as a result of the change.
- 567 IAC 22.110(1)*

2. Such changes do not include changes that would violate applicable requirements or contravene federally enforceable permit terms and conditions that are monitoring (including test methods), record keeping, reporting, or compliance certification requirements. *567 IAC 22.110(2)*

3. Notwithstanding any other part of this rule, the director may, upon review of a notice, require a stationary source to apply for a Title V permit if the change does not meet the requirements of subrule 22.110(1). *567 IAC 22.110(3)*

4. The permit shield provided in subrule 22.108(18) shall not apply to any change made pursuant to this rule. Compliance with the permit requirements that the source will meet using the emissions trade shall be determined according to requirements of the state implementation plan authorizing the emissions trade. *567 IAC 22.110(4)*

5. No permit revision shall be required, under any approved economic incentives, marketable permits, emissions trading and other similar programs or processes, for changes that are provided for in this permit. *567 IAC 22.108(11)*

#### **G18. Duty to Modify a Title V Permit**

##### **1. Administrative Amendment.**

- a. An administrative permit amendment is a permit revision that is required to do any of the following:
  - i. Correct typographical errors
  - ii. Identify a change in the name, address, or telephone number of any person identified in the permit, or provides a similar minor administrative change at the source;
  - iii. Require more frequent monitoring or reporting by the permittee; or
  - iv. Allow for a change in ownership or operational control of a source where the director determines that no other change in the permit is necessary, provided that a written agreement containing a specific date for transfer of permit responsibility, coverage and liability between the current and new permittee has been submitted to the director.
- b. The permittee may implement the changes addressed in the request for an administrative amendment immediately upon submittal of the request. The request shall be submitted to the director.
- c. Administrative amendments to portions of permits containing provisions pursuant to Title IV of the Act shall be governed by regulations promulgated by the administrator under Title IV of the Act.

##### **2. Minor Permit Modification.**

- a. Minor permit modification procedures may be used only for those permit modifications that do any of the following:

- i. Do not violate any applicable requirements
  - ii. Do not involve significant changes to existing monitoring, reporting or recordkeeping requirements in the Title V permit.
  - iii. Do not require or change a case by case determination of an emission limitation or other standard, or increment analysis.
  - iv. Do not seek to establish or change a permit term or condition for which there is no corresponding underlying applicable requirement and that the source has assumed in order to avoid an applicable requirement to which the source would otherwise be subject. Such terms and conditions include any federally enforceable emissions caps which the source would assume to avoid classification as a modification under any provision under Title I of the Act; and an alternative emissions limit approved pursuant to regulations promulgated under section 112(i)(5) of the Act.;
  - v. Are not modifications under any provision of Title I of the Act; and
  - vi. Are not required to be processed as significant modification.
- b. An application for minor permit revision shall be on the minor Title V modification application form and shall include at least the following:
- i. A description of the change, the emissions resulting from the change, and any new applicable requirements that will apply if the change occurs.
  - ii. The permittee's suggested draft permit
  - iii. Certification by a responsible official, pursuant to 567 IAC 22.107(4), that the proposed modification meets the criteria for use of a minor permit modification procedures and a request that such procedures be used; and
  - iv. Completed forms to enable the department to notify the administrator and the affected states as required by 567 IAC 22.107(7).
- c. The permittee may make the change proposed in its minor permit modification application immediately after it files the application. After the permittee makes this change and until the director takes any of the actions specified in 567 IAC 22.112(4) "a" to "c", the permittee must comply with both the applicable requirements governing the change and the proposed permit terms and conditions. During this time, the permittee need not comply with the existing permit terms and conditions it seeks to modify. However, if the permittee fails to comply with its proposed permit terms and conditions during this time period, existing permit term terms and conditions it seeks to modify may subject the facility to enforcement action.
3. Significant Permit Modification. Significant Title V modification procedures shall be used for applications requesting Title V permit modifications that do not qualify as minor Title V modifications or as administrative amendments. These include but are not limited to all significant changes in monitoring permit terms, every relaxation of reporting or recordkeeping permit terms, and any change in the method of measuring compliance with existing requirements. Significant Title V modifications shall meet all requirements of 567 IAC Chapter 22, including those for applications, public participation, review by affected states, and review by the administrator, and those requirements that apply to Title V issuance and renewal. 567 IAC 22.111-567 IAC 22.113 The permittee shall submit an application for a significant permit modification not later than three months after commencing operation of the changed source unless the existing Title V permit would prohibit such construction or change in operation, in which event the operation of the changed source may not commence until the department revises the permit. 567 IAC 22.105(1)"a"(4)

**G19. Duty to Obtain Construction Permits**

Unless exempted under 567 IAC 22.1(2), the permittee must not construct, install, reconstruct, or alter any equipment, control equipment or anaerobic lagoon without first obtaining a construction permit, conditional permit, or permit pursuant to 567 IAC 22.8, or permits required pursuant to 567 IAC 22.4 and 567 IAC 22.5. Such permits shall be obtained prior to the initiation of construction, installation or alteration of any portion of the stationary source. 567 IAC 22.1(1)

**G20. Asbestos**

The permittee shall comply with 567 IAC 23.1(3)"a", and 567 IAC 23.2(3)"g" when conducting any renovation or demolition activities at the facility. 567 IAC 23.1(3)"a", and 567 IAC 23.2

**G21. Open Burning**

The permittee is prohibited from conducting open burning, except as may be allowed by 567 IAC 23.2. 567 IAC 23.2 *except* 23.2(3)"h"; 567 IAC 23.2(3)"h" - *State Only*

**G22. Acid Rain (Title IV) Emissions Allowances**

The permittee shall not exceed any allowances that it holds under Title IV of the Act or the regulations promulgated there under. Annual emissions of sulfur dioxide in excess of the number of allowances to emit sulfur dioxide held by the owners and operators of the unit or the designated representative of the owners and operators is prohibited. Exceedences of applicable emission rates are prohibited. "Held" in this context refers to both those allowances assigned to the owners and operators by USEPA, and those allowances supplementally acquired by the owners and operators. The use of any allowance prior to the year for which it was allocated is prohibited. Contravention of any other provision of the permit is prohibited. 567 IAC 22.108(7)

**G23. Stratospheric Ozone and Climate Protection (Title VI) Requirements**

1. The permittee shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 40 CFR Part 82, Subpart E:

- a. All containers in which a class I or class II substance is stored or transported, all products containing a class I substance, and all products directly manufactured with a class I substance must bear the required warning statement if it is being introduced into interstate commerce pursuant to § 82.106.
- b. The placement of the required warning statement must comply with the requirements pursuant to § 82.108.
- c. The form of the label bearing the required warning statement must comply with the requirements pursuant to § 82.110.
- d. No person may modify, remove, or interfere with the required warning statement except as described in § 82.112.

2. The permittee shall comply with the standards for recycling and emissions reduction pursuant to 40 CFR Part 82, Subpart F, except as provided for MVACs in Subpart B:

- a. Persons opening appliances for maintenance, service, repair, or disposal must comply with the required practices pursuant to § 82.156.
- b. Equipment used during the maintenance, service, repair, or disposal of appliances must comply with the standards for recycling and recovery equipment pursuant to § 82.158.
- c. Persons performing maintenance, service, repair, or disposal of appliances must be certified by an approved technician certification program pursuant to § 82.161.
- d. Persons disposing of small appliances, MVACs, and MVAC-like appliances must comply with reporting and recordkeeping requirements pursuant to § 82.166. ("MVAC-like appliance" as defined at § 82.152)
- e. Persons owning commercial or industrial process refrigeration equipment must comply with the leak repair requirements pursuant to § 82.156.

f. Owners/operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to § 82.166.

3. If the permittee manufactures, transforms, imports, or exports a class I or class II substance, the permittee is subject to all the requirements as specified in 40 CFR part 82, Subpart A, Production and Consumption Controls.

4. If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable requirements as specified in 40 CFR part 82, Subpart B, Servicing of Motor Vehicle Air Conditioners. The term "motor vehicle" as used in Subpart B does not include a vehicle in which final assembly of the vehicle has not been completed. The term "MVAC" as used in Subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo, or system used on passenger buses using HCFC-22 refrigerant,

5. The permittee shall be allowed to switch from any ozone-depleting substance to any alternative that is listed in the Significant New Alternatives Program (SNAP) promulgated pursuant to 40 CFR part 82, Subpart G, Significant New Alternatives Policy Program. *40 CFR part 82*

#### **G24. Permit Reopenings**

1. This permit may be modified, revoked, reopened, and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition. *567 IAC 22.108(9)"c"*

2. Additional applicable requirements under the Act become applicable to a major part 70 source with a remaining permit term of 3 or more years. Revisions shall be made as expeditiously as practicable, but not later than 18 months after the promulgation of such standards and regulations.

a. Reopening and revision on this ground is not required if the permit has a remaining term of less than three years;

b. Reopening and revision on this ground is not required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions have been extended pursuant to 40 CFR 70.4(b)(10)(i) or (ii) as amended to June 25, 1993.

c. Reopening and revision on this ground is not required if the additional applicable requirements are implemented in a general permit that is applicable to the source and the source receives approval for coverage under that general permit. *567 IAC 22.108(17)"a"*, *567 IAC 22.108(17)"b"*

3. A permit shall be reopened and revised under any of the following circumstances:

a. The department receives notice that the administrator has granted a petition for disapproval of a permit pursuant to 40 CFR 70.8(d) as amended to June 25, 1993, provided that the reopening may be stayed pending judicial review of that determination;

b. The department or the administrator determines that the Title V permit contains a material mistake or that inaccurate statements were made in establishing the emissions standards or other terms or conditions of the Title V permit;

c. Additional applicable requirements under the Act become applicable to a Title V source, provided that the reopening on this ground is not required if the permit has a remaining term of less than three years, the effective date of the requirement is later than the date on which the permit is due to expire, or the additional applicable requirements are implemented in a general permit that is applicable to the source and the source

receives approval for coverage under that general permit. Such a reopening shall be complete not later than 18 months after promulgation of the applicable requirement.

d. Additional requirements, including excess emissions requirements, become applicable to a Title IV affected source under the acid rain program. Upon approval by the administrator, excess emissions offset plans shall be deemed to be incorporated into the permit.

e. The department or the administrator determines that the permit must be revised or revoked to ensure compliance by the source with the applicable requirements. *567 IAC 22.114(1)*

4. Proceedings to reopen and reissue a Title V permit shall follow the procedures applicable to initial permit issuance and shall effect only those parts of the permit for which cause to reopen exists. *567 IAC 22.114(2)*

#### **G25. Permit Shield**

1. The director may expressly include in a Title V permit a provision stating that compliance with the conditions of the permit shall be deemed compliance with any applicable requirements as of the date of permit issuance, provided that:

a. Such applicable requirements are included and are specifically identified in the permit; or

b. The director, in acting on the permit application or revision, determines in writing that other requirements specifically identified are not applicable to the source, and the permit includes the determination or a concise summary thereof.

2. A Title V permit that does not expressly state that a permit shield exists shall be presumed not to provide such a shield.

3. A permit shield shall not alter or affect the following:

a. The provisions of Section 303 of the Act (emergency orders), including the authority of the administrator under that section;

b. The liability of an owner or operator of a source for any violation of applicable requirements prior to or at the time of permit issuance;

c. The applicable requirements of the acid rain program, consistent with Section 408(a) of the Act;

d. The ability of the department or the administrator to obtain information from the facility pursuant to Section 114 of the Act. *567 IAC 22.108 (18)*

#### **G26. Severability**

The provisions of this permit are severable and if any provision or application of any provision is found to be invalid by this department or a court of law, the application of such provision to other circumstances, and the remainder of this permit, shall not be affected by such finding. *567 IAC 22.108 (8)*

#### **G27. Property Rights**

The permit does not convey any property rights of any sort, or any exclusive privilege. *567 IAC 22.108 (9)"d"*

#### **G28. Transferability**

This permit is not transferable from one source to another. If title to the facility or any part of it is transferred, an administrative amendment to the permit must be sought to determine transferability of the permit. *567 IAC 22.111 (1)"d"*

#### **G29. Disclaimer**

No review has been undertaken on the engineering aspects of the equipment or control equipment other than the potential of that equipment for reducing air contaminant emissions. *567 IAC 22.3(3)"c"*



**G30. Notification and Reporting Requirements for Stack Tests or Monitor Certification**

The permittee shall notify the department's stack test contact in writing not less than 30 days before a required test or performance evaluation of a continuous emission monitor is performed to determine compliance with an applicable requirement. For the department to consider test results a valid demonstration of compliance with applicable rules or a permit condition, such notice shall be given. Such notice shall include the time, the place, the name of the person who will conduct the test and other information as required by the department. Unless specifically waived by the department's stack test contact, a pretest meeting shall be held not later than 15 days prior to conducting the compliance demonstration. The department may accept a testing protocol in lieu of a pretest meeting. A representative of the department shall be permitted to witness the tests. Results of the tests shall be submitted in writing to the department's stack test contact in the form of a comprehensive report within six weeks of the completion of the testing. Compliance tests conducted pursuant to this permit shall be conducted with the source operating in a normal manner at its maximum continuous output as rated by the equipment manufacturer, or the rate specified by the owner as the maximum production rate at which the source shall be operated. In cases where compliance is to be demonstrated at less than the maximum continuous output as rated by the equipment manufacturer, and it is the owner's intent to limit the capacity to that rating, the owner may submit evidence to the department that the source has been physically altered so that capacity cannot be exceeded, or the department may require additional testing, continuous monitoring, reports of operating levels, or any other information deemed necessary by the department to determine whether such source is in compliance.

Stack test notifications, reports and correspondence shall be sent to:

Stack Test Review Coordinator  
Iowa DNR, Air Quality Bureau  
7900 Hickman Road, Suite #1  
Urbandale, IA 50322  
(515) 242-6001

Within Polk and Linn Counties, stack test notifications, reports and correspondence shall also be directed to the supervisor of the respective county air pollution program.

*567 IAC 25.1(7)"a", 567 IAC 25.1(9)*

**G31. Prevention of Air Pollution Emergency Episodes**

The permittee shall comply with the provisions of 567 IAC Chapter 26 in the prevention of excessive build-up of air contaminants during air pollution episodes, thereby preventing the occurrence of an emergency due to the effects of these contaminants on the health of persons.

*567 IAC 26.1(1)*

**G32. Contacts List**

The current address and phone number for reports and notifications to the EPA administrator is:

Chief of Air Permits  
EPA Region 7  
Air Permits and Compliance Branch  
901 N. 5<sup>th</sup> Street  
Kansas City, KS 66101  
(913) 551-7020

The current address and phone number for reports and notifications to the department or the Director is:

Chief, Air Quality Bureau  
Iowa Department of Natural Resources  
7900 Hickman Road, Suite #1  
Urbandale, IA 50322  
(515) 242-5100

Reports or notifications to the DNR Field Offices or local programs shall be directed to the supervisor at the appropriate field office or local program. Current addresses and phone numbers are:

**Field Office 1**

909 West Main – Suite 4  
Manchester, IA 52057  
(563) 927-2640

**Field Office 2**

P.O. Box 1443  
2300-15th St., SW  
Mason City, IA 50401  
(641) 424-4073

**Field Office 3**

1900 N. Grand Ave.  
Spencer, IA 51301  
(712) 262-4177

**Field Office 4**

1401 Sunnyside Lane  
Atlantic, IA 50022  
(712) 243-1934

**Field Office 5**

401 SW 7<sup>th</sup> Street, Suite I  
Des Moines, IA 50309  
(515) 725-0268

**Field Office 6**

**1023 West Madison Street**  
Washington, IA 52353-1623  
(319) 653-2135

**Polk County Planning & Development**

Air Quality Division  
5885 NE 14th St.  
Des Moines, IA 50313  
(515) 286-3351

**Linn County Public Health Dept.**

Air Pollution Control Division  
501 13th St., NW  
Cedar Rapids, IA 52405  
(319) 892-6000

**V. Appendix A – 40 CFR Part 63 Subpart DDDDD:  
NESHAP for Industrial, Commercial, and Institutional Boilers and Process  
Heaters**

(48) ASTM D5865–03a, Standard Test Method for Gross Calorific Value of Coal and Coke,<sup>1</sup> IBR approved for Table 6 to Subpart DDDDD of this part.

(49) ASTM D6323–98 (Reapproved 2003), Standard Guide for Laboratory Subsampling of Media Related to Waste Management Activities,<sup>1</sup> IBR approved for Table 6 to Subpart DDDDD of this part.

(50) ASTM E711–87 (Reapproved 1996), Standard Test Method for Gross Calorific Value of Refuse-Derived Fuel by the Bomb Calorimeter,<sup>1</sup> IBR approved for Table 6 to Subpart DDDDD of this part.

(51) ASTM E776–87 (Reapproved 1996), Standard Test Method for Forms of Chlorine in Refuse-Derived Fuel,<sup>1</sup> IBR approved for Table 6 to Subpart DDDDD of this part.

(52) ASTM E871–82 (Reapproved 1998), Standard Method of Moisture Analysis of Particulate Wood Fuels,<sup>1</sup> IBR approved for Table 6 to Subpart DDDDD of this part.

(53) ASTM E885–88 (Reapproved 1996), Standard Test Methods for Analyses of Metals in Refuse-Derived Fuel by Atomic Absorption Spectroscopy,<sup>1</sup> IBR approved for Table 6 to Subpart DDDDD of this part 63.

\* \* \* \* \*

(i) \* \* \*

(3) ANSI/ASME PTC 19.10–1981, “Flue and Exhaust Gas Analyses [Part 10, Instruments and Apparatus],” IBR approved for §§ 63.865(b), 63.3166(a), 63.3360(e)(1)(iii), 63.3545(a)(3), 63.3555(a)(3), 63.4166(a)(3), 63.4362(a)(3), 63.4766(a)(3), 63.4965(a)(3), 63.5160(d)(1)(iii), 63.9307(c)(2), 63.9323(a)(3), and Table 5 to Subpart DDDDD of this part.

\* \* \* \* \*

■ 3. Part 63 is amended by adding subpart DDDDD to read as follows:

**Subpart DDDDD—National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters**

Sec.

**What This Subpart Covers**

63.7480 What is the purpose of this subpart?

63.7485 Am I subject to this subpart?

63.7490 What is the affected source of this subpart?

63.7491 Are any boilers or process heaters not subject to this subpart?

63.7495 When do I have to comply with this subpart?

**Emission Limits and Work Practice Standards**

63.7499 What are the subcategories of boilers and process heaters?

63.7500 What emission limits, work practice standards, and operating limits must I meet?

**General Compliance Requirements**

63.7505 What are my general requirements for complying with this subpart?

63.7506 Do any boilers or process heaters have limited requirements?

63.7507 What are the health-based compliance alternatives for the hydrogen chloride (HCl) and total selected metals (TSM) standards?

**Testing, Fuel Analyses, and Initial Compliance Requirements**

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63.7515 When must I conduct subsequent performance tests or fuel analyses?

63.7520 What performance tests and procedures must I use?

63.7521 What fuel analyses and procedures must I use?

63.7522 Can I use emission averaging to comply with this subpart?

63.7525 What are my monitoring, installation, operation, and maintenance requirements?

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**Continuous Compliance Requirements**

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63.7545 What notifications must I submit and when?

63.7550 What reports must I submit and when?

63.7555 What records must I keep?

63.7560 In what form and how long must I keep my records?

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Table 2 to Subpart DDDDD of Part 63—Operating Limits for Boilers and Process Heaters With Particulate Matter Emission Limits

Table 3 to Subpart DDDDD of Part 63—Operating Limits for Boilers and Process Heaters With Mercury Emission Limits and Boilers and Process Heaters That Choose to Comply With the Alternative Total Selected Metals Emission Limits

Table 4 to Subpart DDDDD of Part 63—Operating Limits for Boilers and Process

Heaters With Hydrogen Chloride Emission Limits

Table 5 to Subpart DDDDD of Part 63—

Performance Testing Requirements

Table 6 to Subpart DDDDD of Part 63—Fuel

Analysis Requirements

Table 7 to Subpart DDDDD of Part 63—

Establishing Operating Limits

Table 8 to Subpart DDDDD of Part 63—

Demonstrating Continuous Compliance

Table 9 to Subpart DDDDD of Part 63—

Reporting Requirements

Table 10 to Subpart DDDDD of Part 63—

Applicability of General Provisions to

Subpart DDDDD

**Appendix**

Appendix A to Subpart DDDDD—

Methodology and Criteria for

Demonstrating Eligibility for the Health-Based Compliance Alternatives Specified for the Large Solid Fuel Subcategory

**Subpart DDDDD—National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters**

**What This Subpart Covers**

**§ 63.7480 What is the purpose of this subpart?**

This subpart establishes national emission limits and work practice standards for hazardous air pollutants (HAP) emitted from industrial, commercial, and institutional boilers and process heaters. This subpart also establishes requirements to demonstrate initial and continuous compliance with the emission limits and work practice standards.

**§ 63.7485 Am I subject to this subpart?**

You are subject to this subpart if you own or operate an industrial, commercial, or institutional boiler or process heater as defined in § 63.7575 that is located at, or is part of, a major source of HAP as defined in § 63.2 or § 63.761 (40 CFR part 63, subpart HH, National Emission Standards for Hazardous Air Pollutants from Oil and Natural Gas Production Facilities), except as specified in § 63.7491.

**§ 63.7490 What is the affected source of this subpart?**

(a) This subpart applies to new, reconstructed, or existing affected sources as described in paragraphs (a)(1) and (2) of this section.

(1) The affected source of this subpart is the collection of all existing industrial, commercial, and institutional boilers and process heaters within a subcategory located at a major source as defined in § 63.7575.

(2) The affected source of this subpart is each new or reconstructed industrial, commercial, or institutional boiler or

process heater located at a major source as defined in § 63.7575.

(b) A boiler or process heater is new if you commence construction of the boiler or process heater after January 13, 2003, and you meet the applicability criteria at the time you commence construction.

(c) A boiler or process heater is reconstructed if you meet the reconstruction criteria as defined in § 63.2, you commence reconstruction after January 13, 2003, and you meet the applicability criteria at the time you commence reconstruction.

(d) A boiler or process heater is existing if it is not new or reconstructed.

**§ 63.7491 Are any boilers or process heaters not subject to this subpart?**

The types of boilers and process heaters listed in paragraphs (a) through (o) of this section are not subject to this subpart.

(a) A municipal waste combustor covered by 40 CFR part 60, subpart AAAA, subpart BBBB, subpart Cb or subpart Eb.

(b) A hospital/medical/infectious waste incinerator covered by 40 CFR part 60, subpart Ce or subpart Ec.

(c) An electric utility steam generating unit that is a fossil fuel-fired combustion unit of more than 25 megawatts that serves a generator that produces electricity for sale. A fossil fuel-fired unit that cogenerates steam and electricity, and supplies more than one-third of its potential electric output capacity, and more than 25 megawatts electrical output to any utility power distribution system for sale is considered an electric utility steam generating unit.

(d) A boiler or process heater required to have a permit under section 3005 of the Solid Waste Disposal Act or covered by 40 CFR part 63, subpart EEE (e.g., hazardous waste boilers).

(e) A commercial and industrial solid waste incineration unit covered by 40 CFR part 60, subpart CCCC or subpart DDDD.

(f) A recovery boiler or furnace covered by 40 CFR part 63, subpart MM.

(g) A boiler or process heater that is used specifically for research and development. This does not include units that only provide heat or steam to a process at a research and development facility.

(h) A hot water heater as defined in this subpart.

(i) A refining kettle covered by 40 CFR part 63, subpart X.

(j) An ethylene cracking furnace covered by 40 CFR part 63, subpart YY.

(k) Blast furnace stoves as described in the EPA document, entitled

“National Emission Standards for Hazardous Air Pollutants (NESHAP) for Integrated Iron and Steel Plants—Background Information for Proposed Standards,” (EPA-453/R-01-005).

(l) Any boiler and process heater specifically listed as an affected source in another standard(s) under 40 CFR part 63.

(m) Any boiler and process heater specifically listed as an affected source in another standard(s) established under section 129 of the Clean Air Act (CAA).

(n) Temporary boilers as defined in this subpart.

(o) Blast furnace gas fuel-fired boilers and process heaters as defined in this subpart.

**§ 63.7495 When do I have to comply with this subpart?**

(a) If you have a new or reconstructed boiler or process heater, you must comply with this subpart by November 12, 2004 or upon startup of your boiler or process heater, whichever is later.

(b) If you have an existing boiler or process heater, you must comply with this subpart no later than September 13, 2007.

(c) If you have an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP, paragraphs (c)(1) and (2) of this section apply to you.

(1) Any new or reconstructed boiler or process heater at the existing facility must be in compliance with this subpart upon startup.

(2) Any existing boiler or process heater at the existing facility must be in compliance with this subpart within 3 years after the facility becomes a major source.

(d) You must meet the notification requirements in § 63.7545 according to the schedule in § 63.7545 and in subpart A of this part. Some of the notifications must be submitted before you are required to comply with the emission limits and work practice standards in this subpart.

**Emission Limits and Work Practice Standards**

**§ 63.7499 What are the subcategories of boilers and process heaters?**

The subcategories of boilers and process heaters are large solid fuel, limited use solid fuel, small solid fuel, large liquid fuel, limited use liquid fuel, small liquid fuel, large gaseous fuel, limited use gaseous fuel, and small gaseous fuel. Each subcategory is defined in § 63.7575.

**§ 63.7500 What emission limits, work practice standards, and operating limits must I meet?**

(a) You must meet the requirements in paragraphs (a)(1) and (2) of this section.

(1) You must meet each emission limit and work practice standard in Table 1 to this subpart that applies to your boiler or process heater, except as provided under § 63.7507.

(2) You must meet each operating limit in Tables 2 through 4 to this subpart that applies to your boiler or process heater. If you use a control device or combination of control devices not covered in Tables 2 through 4 to this subpart, or you wish to establish and monitor an alternative operating limit and alternative monitoring parameters, you must apply to the United States Environmental Protection Agency (EPA) Administrator for approval of alternative monitoring under § 63.8(f).

(b) As provided in § 63.6(g), EPA may approve use of an alternative to the work practice standards in this section.

**General Compliance Requirements**

**§ 63.7505 What are my general requirements for complying with this subpart?**

(a) You must be in compliance with the emission limits (including operating limits) and the work practice standards in this subpart at all times, except during periods of startup, shutdown, and malfunction.

(b) You must always operate and maintain your affected source, including air pollution control and monitoring equipment, according to the provisions in § 63.6(e)(1)(i).

(c) You can demonstrate compliance with any applicable emission limit using fuel analysis if the emission rate calculated according to § 63.7530(d) is less than the applicable emission limit. Otherwise, you must demonstrate compliance using performance testing.

(d) If you demonstrate compliance with any applicable emission limit through performance testing, you must develop a site-specific monitoring plan according to the requirements in paragraphs (d)(1) through (4) of this section. This requirement also applies to you if you petition the EPA Administrator for alternative monitoring parameters under § 63.8(f).

(1) For each continuous monitoring system (CMS) required in this section, you must develop and submit to the EPA Administrator for approval a site-specific monitoring plan that addresses paragraphs (d)(1)(i) through (iii) of this section. You must submit this site-specific monitoring plan at least 60 days

before your initial performance evaluation of your CMS.

(i) Installation of the CMS sampling probe or other interface at a measurement location relative to each affected process unit such that the measurement is representative of control of the exhaust emissions (*e.g.*, on or downstream of the last control device);

(ii) Performance and equipment specifications for the sample interface, the pollutant concentration or parametric signal analyzer, and the data collection and reduction systems; and

(iii) Performance evaluation procedures and acceptance criteria (*e.g.*, calibrations).

(2) In your site-specific monitoring plan, you must also address paragraphs (d)(2)(i) through (iii) of this section.

(i) Ongoing operation and maintenance procedures in accordance with the general requirements of § 63.8(c)(1), (c)(3), and (c)(4)(ii);

(ii) Ongoing data quality assurance procedures in accordance with the general requirements of § 63.8(d); and

(iii) Ongoing recordkeeping and reporting procedures in accordance with the general requirements of § 63.10(c), (e)(1), and (e)(2)(i).

(3) You must conduct a performance evaluation of each CMS in accordance with your site-specific monitoring plan.

(4) You must operate and maintain the CMS in continuous operation according to the site-specific monitoring plan.

(e) If you have an applicable emission limit or work practice standard, you must develop and implement a written startup, shutdown, and malfunction plan (SSMP) according to the provisions in § 63.6(e)(3).

**§ 63.7506 Do any boilers or process heaters have limited requirements?**

(a) New or reconstructed boilers and process heaters in the large liquid fuel subcategory or the limited use liquid fuel subcategory that burn only fossil fuels and other gases and do not burn any residual oil are subject to the emission limits and applicable work practice standards in Table 1 to this subpart. You are not required to conduct a performance test to demonstrate compliance with the emission limits. You are not required to set and maintain operating limits to demonstrate continuous compliance with the emission limits. However, you must meet the requirements in paragraphs (a)(1) and (2) of this section and meet the CO work practice standard in Table 1 to this subpart.

(1) To demonstrate initial compliance, you must include a signed statement in

the Notification of Compliance Status report required in § 63.7545(e) that indicates you burn only liquid fossil fuels other than residual oils, either alone or in combination with gaseous fuels.

(2) To demonstrate continuous compliance with the applicable emission limits, you must also keep records that demonstrate that you burn only liquid fossil fuels other than residual oils, either alone or in combination with gaseous fuels. You must also include a signed statement in each semiannual compliance report required in § 63.7550 that indicates you burned only liquid fossil fuels other than residual oils, either alone or in combination with gaseous fuels, during the reporting period.

(b) The affected boilers and process heaters listed in paragraphs (b)(1) through (3) of this section are subject to only the initial notification requirements in § 63.9(b) (*i.e.*, they are not subject to the emission limits, work practice standards, performance testing, monitoring, SSMP, site-specific monitoring plans, recordkeeping and reporting requirements of this subpart or any other requirements in subpart A of this part).

(1) Existing large and limited use gaseous fuel units.

(2) Existing large and limited use liquid fuel units.

(3) New or reconstructed small liquid fuel units that burn only gaseous fuels or distillate oil. New or reconstructed small liquid fuel boilers and process heaters that commence burning of any other type of liquid fuel must comply with all applicable requirements of this subpart and subpart A of this part upon startup of burning the other type of liquid fuel.

(c) The affected boilers and process heaters listed in paragraphs (c)(1) through (4) of this section are not subject to the initial notification requirements in § 63.9(b) and are not subject to any requirements in this subpart or in subpart A of this part (*i.e.*, they are not subject to the emission limits, work practice standards, performance testing, monitoring, SSMP plans, site-specific monitoring plans, recordkeeping and reporting requirements of this subpart, or any other requirements in subpart A of this part).

(1) Existing small solid fuel boilers and process heaters.

(2) Existing small liquid fuel boilers and process heaters.

(3) Existing small gaseous fuel boilers and process heaters.

(4) New or reconstructed small gaseous fuel units.

**§ 63.7507 What are the health-based compliance alternatives for the hydrogen chloride (HCl) and total selected metals (TSM) standards?**

(a) As an alternative to the requirement for large solid fuel boilers located at a single facility to demonstrate compliance with the HCl emission limit in Table 1 to this subpart, you may demonstrate eligibility for the health-based compliance alternative for HCl emissions under the procedures prescribed in appendix A to this subpart.

(b) In lieu of complying with the TSM emission standards in Table 1 to this subpart based on the sum of emissions for the eight selected metals, you may demonstrate eligibility for complying with the TSM emission standards in Table 1 based on the sum of emissions for seven selected metals (by excluding manganese emissions from the summation of TSM emissions) under the procedures prescribed in appendix A to this subpart.

**Testing, Fuel Analyses, and Initial Compliance Requirements**

**§ 63.7510 What are my initial compliance requirements and by what date must I conduct them?**

(a) For affected sources that elect to demonstrate compliance with any of the emission limits of this subpart through performance testing, your initial compliance requirements include conducting performance tests according to § 63.7520 and Table 5 to this subpart, conducting a fuel analysis for each type of fuel burned in your boiler or process heater according to § 63.7521 and Table 6 to this subpart, establishing operating limits according to § 63.7530 and Table 7 to this subpart, and conducting CMS performance evaluations according to § 63.7525.

(b) For affected sources that elect to demonstrate compliance with the emission limits for HCl, mercury, or TSM through fuel analysis, your initial compliance requirement is to conduct a fuel analysis for each type of fuel burned in your boiler or process heater according to § 63.7521 and Table 6 to this subpart and establish operating limits according to § 63.7530 and Table 8 to this subpart.

(c) For affected sources that have an applicable work practice standard, your initial compliance requirements depend on the subcategory and rated capacity of your boiler or process heater. If your boiler or process heater is in any of the limited use subcategories or has a heat input capacity less than 100 MMBtu per hour, your initial compliance demonstration is conducting a performance test for carbon monoxide

according to Table 5 to this subpart. If your boiler or process heater is in any of the large subcategories and has a heat input capacity of 100 MMBtu per hour or greater, your initial compliance demonstration is conducting a performance evaluation of your continuous emission monitoring system for carbon monoxide according to § 63.7525(a).

(d) For existing affected sources, you must demonstrate initial compliance no later than 180 days after the compliance date that is specified for your source in § 63.7495 and according to the applicable provisions in § 63.7(a)(2) as cited in Table 10 to this subpart.

(e) If your new or reconstructed affected source commenced construction or reconstruction between January 13, 2003 and November 12, 2004, you must demonstrate initial compliance with either the proposed emission limits and work practice standards or the promulgated emission limits and work practice standards no later than 180 days after November 12, 2004 or within 180 days after startup of the source, whichever is later, according to § 63.7(a)(2)(ix).

(f) If your new or reconstructed affected source commenced construction or reconstruction between January 13, 2003, and November 12, 2004, and you chose to comply with the proposed emission limits and work practice standards when demonstrating initial compliance, you must conduct a second compliance demonstration for the promulgated emission limits and work practice standards within 3 years after November 12, 2004 or within 3 years after startup of the affected source, whichever is later.

(g) If your new or reconstructed affected source commences construction or reconstruction after November 12, 2004, you must demonstrate initial compliance with the promulgated emission limits and work practice standards no later than 180 days after startup of the source.

**§ 63.7515 When must I conduct subsequent performance tests or fuel analyses?**

(a) You must conduct all applicable performance tests according to § 63.7520 on an annual basis, unless you follow the requirements listed in paragraphs (b) through (d) of this section. Annual performance tests must be completed between 10 and 12 months after the previous performance test, unless you follow the requirements listed in paragraphs (b) through (d) of this section.

(b) You can conduct performance tests less often for a given pollutant if your

performance tests for the pollutant (particulate matter, HCl, mercury, or TSM) for at least 3 consecutive years show that you comply with the emission limit. In this case, you do not have to conduct a performance test for that pollutant for the next 2 years. You must conduct a performance test during the third year and no more than 36 months after the previous performance test.

(c) If your boiler or process heater continues to meet the emission limit for particulate matter, HCl, mercury, or TSM, you may choose to conduct performance tests for these pollutants every third year, but each such performance test must be conducted no more than 36 months after the previous performance test.

(d) If a performance test shows noncompliance with an emission limit for particulate matter, HCl, mercury, or TSM, you must conduct annual performance tests for that pollutant until all performance tests over a consecutive 3-year period show compliance.

(e) If you have an applicable work practice standard for carbon monoxide and your boiler or process heater is in any of the limited use subcategories or has a heat input capacity less than 100 MMBtu per hour, you must conduct annual performance tests for carbon monoxide according to § 63.7520. Each annual performance test must be conducted between 10 and 12 months after the previous performance test.

(f) You must conduct a fuel analysis according to § 63.7521 for each type of fuel burned no later than 5 years after the previous fuel analysis for each fuel type. If you burn a new type of fuel, you must conduct a fuel analysis before burning the new type of fuel in your boiler or process heater. You must still meet all applicable continuous compliance requirements in § 63.7540.

(g) You must report the results of performance tests and fuel analyses within 60 days after the completion of the performance tests or fuel analyses. This report should also verify that the operating limits for your affected source have not changed or provide documentation of revised operating parameters established according to § 63.7530 and Table 7 to this subpart, as applicable. The reports for all subsequent performance tests and fuel analyses should include all applicable information required in § 63.7550.

**§ 63.7520 What performance tests and procedures must I use?**

(a) You must conduct all performance tests according to § 63.7(c), (d), (f), and (h). You must also develop a site-

specific test plan according to the requirements in § 63.7(c) if you elect to demonstrate compliance through performance testing.

(b) You must conduct each performance test according to the requirements in Table 5 to this subpart.

(c) New or reconstructed boilers or process heaters in one of the liquid fuel subcategories that burn only fossil fuels and other gases and do not burn any residual oil must demonstrate compliance according to § 63.7506(a).

(d) You must conduct each performance test under the specific conditions listed in Tables 5 and 7 to this subpart. You must conduct performance tests at the maximum normal operating load while burning the type of fuel or mixture of fuels that have the highest content of chlorine, mercury, and total selected metals, and you must demonstrate initial compliance and establish your operating limits based on these tests. These requirements could result in the need to conduct more than one performance test.

(e) You may not conduct performance tests during periods of startup, shutdown, or malfunction.

(f) You must conduct three separate test runs for each performance test required in this section, as specified in § 63.7(e)(3). Each test run must last at least 1 hour.

(g) To determine compliance with the emission limits, you must use the F-Factor methodology and equations in sections 12.2 and 12.3 of EPA Method 19 of appendix A to part 60 of this chapter to convert the measured particulate matter concentrations, the measured HCl concentrations, the measured TSM concentrations, and the measured mercury concentrations that result from the initial performance test to pounds per million Btu heat input emission rates using F-factors.

**§ 63.7521 What fuel analyses and procedures must I use?**

(a) You must conduct fuel analyses according to the procedures in paragraphs (b) through (e) of this section and Table 6 to this subpart, as applicable.

(b) You must develop and submit a site-specific fuel analysis plan to the EPA Administrator for review and approval according to the following procedures and requirements in paragraphs (b)(1) and (2) of this section.

(1) You must submit the fuel analysis plan no later than 60 days before the date that you intend to demonstrate compliance.

(2) You must include the information contained in paragraphs (b)(2)(i)

through (vi) of this section in your fuel analysis plan.

(i) The identification of all fuel types anticipated to be burned in each boiler or process heater.

(ii) For each fuel type, the notification of whether you or a fuel supplier will be conducting the fuel analysis.

(iii) For each fuel type, a detailed description of the sample location and specific procedures to be used for collecting and preparing the composite samples if your procedures are different from paragraph (c) or (d) of this section. Samples should be collected at a location that most accurately represents the fuel type, where possible, at a point prior to mixing with other dissimilar fuel types.

(iv) For each fuel type, the analytical methods, with the expected minimum detection levels, to be used for the measurement of selected total metals, chlorine, or mercury.

(v) If you request to use an alternative analytical method other than those required by Table 6 to this subpart, you must also include a detailed description of the methods and procedures that will be used.

(vi) If you will be using fuel analysis from a fuel supplier in lieu of site-specific sampling and analysis, the fuel supplier must use the analytical methods required by Table 6 to this subpart.

(c) At a minimum, you must obtain three composite fuel samples for each fuel type according to the procedures in paragraph (c)(1) or (2) of this section.

(1) If sampling from a belt (or screw) feeder, collect fuel samples according to paragraphs (c)(1)(i) and (ii) of this section.

(i) Stop the belt and withdraw a 6-inch wide sample from the full cross-section of the stopped belt to obtain a minimum two pounds of sample. Collect all the material (fines and coarse) in the full cross-section. Transfer the sample to a clean plastic bag.

(ii) Each composite sample will consist of a minimum of three samples collected at approximately equal intervals during the testing period.

(2) If sampling from a fuel pile or truck, collect fuel samples according to paragraphs (c)(2)(i) through (iii) of this section.

(i) For each composite sample, select a minimum of five sampling locations uniformly spaced over the surface of the pile.

(ii) At each sampling site, dig into the pile to a depth of 18 inches. Insert a clean flat square shovel into the hole and withdraw a sample, making sure that large pieces do not fall off during sampling.

(iii) Transfer all samples to a clean plastic bag for further processing.

(d) Prepare each composite sample according to the procedures in paragraphs (d)(1) through (7) of this section.

(1) Thoroughly mix and pour the entire composite sample over a clean plastic sheet.

(2) Break sample pieces larger than 3 inches into smaller sizes.

(3) Make a pie shape with the entire composite sample and subdivide it into four equal parts.

(4) Separate one of the quarter samples as the first subset.

(5) If this subset is too large for grinding, repeat the procedure in paragraph (d)(3) of this section with the quarter sample and obtain a one-quarter subset from this sample.

(6) Grind the sample in a mill.

(7) Use the procedure in paragraph (d)(3) of this section to obtain a one-quarter subsample for analysis. If the quarter sample is too large, subdivide it further using the same procedure.

(e) Determine the concentration of pollutants in the fuel (mercury, chlorine, and/or total selected metals) in units of pounds per million Btu of each composite sample for each fuel type according to the procedures in Table 6 to this subpart.

#### **§ 63.7522 Can I use emission averaging to comply with this subpart?**

(a) As an alternative to meeting the requirements of § 63.7500, if you have more than one existing large solid fuel boiler located at your facility, you may demonstrate compliance by emission averaging according to the procedures in this section in a State that does not choose to exclude emission averaging.

(b) For each existing large solid fuel boiler in the averaging group, the emission rate achieved during the initial compliance test for the HAP being averaged must not exceed the emission level that was being achieved on November 12, 2004 or the control technology employed during the initial compliance test must not be less effective for the HAP being averaged than the control technology employed on November 12, 2004.

(c) You may average particulate matter or TSM, HCl, and mercury emissions from existing large solid fuel boilers to demonstrate compliance with the limits in Table 1 to this subpart if you satisfy the requirements in paragraphs (d), (e), and (f) of this section.

(d) The weighted average emissions from the existing large solid fuel boilers participating in the emissions averaging option must be in compliance with the limits in Table 1 to this subpart at all times following the compliance date specified in § 63.7495.

(e) You must demonstrate initial compliance according to paragraphs (e)(1) or (2) of this section.

(1) You must use Equation 1 of this section to demonstrate that the particulate matter or TSM, HCl, and mercury emissions from all existing large solid fuel boilers participating in the emissions averaging option do not exceed the emission limits in Table 1 to this subpart.



$$\text{AveWeighted Emissions} = \sum_{i=1}^n (\text{Er} \times \text{Hm}) \div \sum_{i=1}^n \text{Hm} \quad (\text{Eq. 1})$$

Where:

AveWeighted = Average weighted emissions for particulate matter or TSM, HCl, or mercury, in units of pounds per million Btu of heat input.

Er = Emission rate (as calculated according to Table 5 to this subpart) or fuel analysis (as calculated by the applicable equation in § 63.7530(d)) for boiler, i, for particulate matter or

TSM, HCl, or mercury, in units of pounds per million Btu of heat input.

Hm = Maximum rated heat input capacity of boiler, i, in units of million Btu per hour.

n = Number of large solid fuel boilers participating in the emissions averaging option.

(2) If you are not capable of monitoring heat input, you can use

Equation 2 of this section as an alternative to using equation 1 of this section to demonstrate that the particulate matter or TSM, HCl, and mercury emissions from all existing large solid fuel boilers participating in the emissions averaging option do not exceed the emission limits in Table 1 to this subpart.

$$\text{AveWeighted Emissions} = \sum_{i=1}^n (\text{Er} \times \text{Sm} \times \text{Cf}) \div \sum_{i=1}^n \text{Sm} \times \text{Cf} \quad (\text{Eq. 2})$$

Where:

AveWeighted = Average weighted emission level for PM or TSM, HCl, or mercury, in units of pounds per million Btu of heat input.

Er = Emission rate (as calculated according to Table 5 to this subpart) or fuel analysis (as calculated by the applicable equation in § 63.7530(d)) for boiler, i, for particulate matter or TSM, HCl, or mercury, in units of

pounds per million Btu of heat input.

Sm = Maximum steam generation by boiler, i, in units of pounds.

Cf = Conversion factor, calculated from the most recent compliance test, in units of million Btu of heat input per pounds of steam generated.

(f) You must demonstrate continuous compliance on a 12-month rolling average basis determined at the end of every month (12 times per year)

according to paragraphs (f)(1) and (2). The first 12-month rolling-average period begins on the compliance date specified in § 63.7495.

(1) For each calendar month, you must use Equation 3 of this section to calculate the 12-month rolling average weighted emission limit using the actual heat capacity for each existing large solid fuel boiler participating in the emissions averaging option.

$$\text{AveWeighted Emissions} = \sum_{i=1}^n (\text{Er} \times \text{Hb}) \div \sum_{i=1}^n \text{Hb} \quad (\text{Eq. 3})$$

Where:

AveWeighted Emissions = 12-month rolling average weighted emission level for particulate matter or TSM, HCl, or mercury, in units of pounds per million Btu of heat input.

Er = Emission rate, calculated during the most recent compliance test, (as calculated according to Table 5 to this subpart) or fuel analysis (as

calculated by the applicable equation in § 63.7530(d)) for boiler, i, for particulate matter or TSM, HCl, or mercury, in units of pounds per million Btu of heat input.

Hb = The average heat input for each calendar month of boiler, i, in units of million Btu.

n = Number of large solid fuel boilers participating in the emissions averaging option.

(2) If you are not capable of monitoring heat input, you can use Equation 4 of this section as an alternative to using Equation 3 of this section to calculate the 12-month rolling average weighted emission limit using the actual steam generation from the large solid fuel boilers participating in the emissions averaging option.

$$\text{AveWeighted Emissions} = \sum_{i=1}^n (\text{Er} \times \text{Sa} \times \text{Cf}) \div \sum_{i=1}^n \text{Sa} \times \text{Cf} \quad (\text{Eq. 4})$$

Where:

AveWeighted Emissions = 12-month rolling average weighted emission level for PM or TSM, HCl, or mercury, in units of pounds per million Btu of heat input.

Er = Emission rate, calculated during the most recent compliance test (as calculated according to Table 5 to this subpart) or fuel analysis (as

calculated by the applicable equation in § 63.7530(d)) for boiler, i, for particulate matter or TSM, HCl, or mercury, in units of pounds per million Btu of heat input.

Sa = Actual steam generation for each calendar month by boiler, i, in units of pounds.

Cf = Conversion factor, as calculated during the most recent compliance

test, in units of million Btu of heat input per pounds of steam generated.

(g) You must develop and submit an implementation plan for emission averaging to the applicable regulatory authority for review and approval according to the following procedures and requirements in paragraphs (g)(1) through (4).

(1) You must submit the implementation plan no later than 180 days before the date that the facility intends to demonstrate compliance using the emission averaging option.

(2) You must include the information contained in paragraphs (g)(2)(i) through (vii) of this section in your implementation plan for all emission sources included in an emissions average:

(i) The identification of all existing large solid fuel boilers in the averaging group, including for each either the applicable HAP emission level or the control technology installed on;

(ii) The process parameter (heat input or steam generated) that will be monitored for each averaging group of large solid fuel boilers;

(iii) The specific control technology or pollution prevention measure to be used for each emission source in the averaging group and the date of its installation or application. If the pollution prevention measure reduces or eliminates emissions from multiple sources, the owner or operator must identify each source;

(iv) The test plan for the measurement of particulate matter (or TSM), HCl, or mercury emissions in accordance with the requirements in § 63.7520;

(v) The operating parameters to be monitored for each control system or device and a description of how the operating limits will be determined;

(vi) If you request to monitor an alternative operating parameter pursuant to § 63.7525, you must also include:

(A) A description of the parameter(s) to be monitored and an explanation of the criteria used to select the parameter(s); and

(B) A description of the methods and procedures that will be used to demonstrate that the parameter indicates proper operation of the control device; the frequency and content of monitoring, reporting, and recordkeeping requirements; and a demonstration, to the satisfaction of the applicable regulatory authority, that the proposed monitoring frequency is sufficient to represent control device operating conditions; and

(vii) A demonstration that compliance with each of the applicable emission limit(s) will be achieved under representative operating conditions.

(3) Upon receipt, the regulatory authority shall review and approve or disapprove the plan according to the following criteria:

(i) Whether the content of the plan includes all of the information specified in paragraph (g)(2) of this section; and

(ii) Whether the plan presents sufficient information to determine that compliance will be achieved and maintained.

(4) The applicable regulatory authority shall not approve an emission averaging implementation plan containing any of the following provisions:

(i) Any averaging between emissions of differing pollutants or between differing sources; or

(ii) The inclusion of any emission source other than an existing large solid fuel boiler.

**§ 63.7525 What are my monitoring, installation, operation, and maintenance requirements?**

(a) If you have an applicable work practice standard for carbon monoxide, and your boiler or process heater is in any of the large subcategories and has a heat input capacity of 100 MMBtu per hour or greater, you must install, operate, and maintain a continuous emission monitoring system (CEMS) for carbon monoxide according to the procedures in paragraphs (a)(1) through (6) of this section by the compliance date specified in § 63.7495.

(1) Each CEMS must be installed, operated, and maintained according to Performance Specification (PS) 4A of 40 CFR part 60, appendix B, and according to the site-specific monitoring plan developed according to § 63.7505(d).

(2) You must conduct a performance evaluation of each CEMS according to the requirements in § 63.8 and according to PS 4A of 40 CFR part 60, appendix B.

(3) Each CEMS must complete a minimum of one cycle of operation (sampling, analyzing, and data recording) for each successive 15-minute period.

(4) The CEMS data must be reduced as specified in § 63.8(g)(2).

(5) You must calculate and record a 30-day rolling average emission rate on a daily basis. A new 30-day rolling average emission rate is calculated as the average of all of the hourly CO emission data for the preceding 30 operating days.

(6) For purposes of calculating data averages, you must not use data recorded during periods of monitoring malfunctions, associated repairs, out-of-control periods, required quality assurance or control activities, or when your boiler or process heater is operating at less than 50 percent of its rated capacity. You must use all the data collected during all other periods in assessing compliance. Any period for which the monitoring system is out of control and data are not available for

required calculations constitutes a deviation from the monitoring requirements.

(b) If you have an applicable opacity operating limit, you must install, operate, certify and maintain each continuous opacity monitoring system (COMS) according to the procedures in paragraphs (b)(1) through (7) of this section by the compliance date specified in § 63.7495.

(1) Each COMS must be installed, operated, and maintained according to PS 1 of 40 CFR part 60, appendix B.

(2) You must conduct a performance evaluation of each COMS according to the requirements in § 63.8 and according to PS 1 of 40 CFR part 60, appendix B.

(3) As specified in § 63.8(c)(4)(i), each COMS must complete a minimum of one cycle of sampling and analyzing for each successive 10-second period and one cycle of data recording for each successive 6-minute period.

(4) The COMS data must be reduced as specified in § 63.8(g)(2).

(5) You must include in your site-specific monitoring plan procedures and acceptance criteria for operating and maintaining each COMS according to the requirements in § 63.8(d). At a minimum, the monitoring plan must include a daily calibration drift assessment, a quarterly performance audit, and an annual zero alignment audit of each COMS.

(6) You must operate and maintain each COMS according to the requirements in the monitoring plan and the requirements of § 63.8(e). Identify periods the COMS is out of control including any periods that the COMS fails to pass a daily calibration drift assessment, a quarterly performance audit, or an annual zero alignment audit.

(7) You must determine and record all the 6-minute averages (and 1-hour block averages as applicable) collected for periods during which the COMS is not out of control.

(c) If you have an operating limit that requires the use of a CMS, you must install, operate, and maintain each continuous parameter monitoring system (CPMS) according to the procedures in paragraphs (c)(1) through (5) of this section by the compliance date specified in § 63.7495.

(1) The CPMS must complete a minimum of one cycle of operation for each successive 15-minute period. You must have a minimum of four successive cycles of operation to have a valid hour of data.

(2) Except for monitoring malfunctions, associated repairs, and required quality assurance or control

activities (including, as applicable, calibration checks and required zero and span adjustments), you must conduct all monitoring in continuous operation at all times that the unit is operating. A monitoring malfunction is any sudden, infrequent, not reasonably preventable failure of the monitoring to provide valid data. Monitoring failures that are caused in part by poor maintenance or careless operation are not malfunctions.

(3) For purposes of calculating data averages, you must not use data recorded during monitoring malfunctions, associated repairs, out of control periods, or required quality assurance or control activities. You must use all the data collected during all other periods in assessing compliance. Any period for which the monitoring system is out-of-control and data are not available for required calculations constitutes a deviation from the monitoring requirements.

(4) Determine the 3-hour block average of all recorded readings, except as provided in paragraph (c)(3) of this section.

(5) Record the results of each inspection, calibration, and validation check.

(d) If you have an operating limit that requires the use of a flow measurement device, you must meet the requirements in paragraphs (c) and (d)(1) through (4) of this section.

(1) Locate the flow sensor and other necessary equipment in a position that provides a representative flow.

(2) Use a flow sensor with a measurement sensitivity of 2 percent of the flow rate.

(3) Reduce swirling flow or abnormal velocity distributions due to upstream and downstream disturbances.

(4) Conduct a flow sensor calibration check at least semiannually.

(e) If you have an operating limit that requires the use of a pressure measurement device, you must meet the requirements in paragraphs (c) and (e)(1) through (6) of this section.

(1) Locate the pressure sensor(s) in a position that provides a representative measurement of the pressure.

(2) Minimize or eliminate pulsating pressure, vibration, and internal and external corrosion.

(3) Use a gauge with a minimum tolerance of 1.27 centimeters of water or a transducer with a minimum tolerance of 1 percent of the pressure range.

(4) Check pressure tap pluggage daily.

(5) Using a manometer, check gauge calibration quarterly and transducer calibration monthly.

(6) Conduct calibration checks any time the sensor exceeds the

manufacturer's specified maximum operating pressure range or install a new pressure sensor.

(f) If you have an operating limit that requires the use of a pH measurement device, you must meet the requirements in paragraphs (c) and (f)(1) through (3) of this section.

(1) Locate the pH sensor in a position that provides a representative measurement of scrubber effluent pH.

(2) Ensure the sample is properly mixed and representative of the fluid to be measured.

(3) Check the pH meter's calibration on at least two points every 8 hours of process operation.

(g) If you have an operating limit that requires the use of equipment to monitor voltage and secondary current (or total power input) of an electrostatic precipitator (ESP), you must use voltage and secondary current monitoring equipment to measure voltage and secondary current to the ESP.

(h) If you have an operating limit that requires the use of equipment to monitor sorbent injection rate (e.g., weigh belt, weigh hopper, or hopper flow measurement device), you must meet the requirements in paragraphs (c) and (h)(1) through (3) of this section.

(1) Locate the device in a position(s) that provides a representative measurement of the total sorbent injection rate.

(2) Install and calibrate the device in accordance with manufacturer's procedures and specifications.

(3) At least annually, calibrate the device in accordance with the manufacturer's procedures and specifications.

(i) If you elect to use a fabric filter bag leak detection system to comply with the requirements of this subpart, you must install, calibrate, maintain, and continuously operate a bag leak detection system as specified in paragraphs (i)(1) through (8) of this section.

(1) You must install and operate a bag leak detection system for each exhaust stack of the fabric filter.

(2) Each bag leak detection system must be installed, operated, calibrated, and maintained in a manner consistent with the manufacturer's written specifications and recommendations and in accordance with the guidance provided in EPA-454/R-98-015, September 1997.

(3) The bag leak detection system must be certified by the manufacturer to be capable of detecting particulate matter emissions at concentrations of 10 milligrams per actual cubic meter or less.

(4) The bag leak detection system sensor must provide output of relative or absolute particulate matter loadings.

(5) The bag leak detection system must be equipped with a device to continuously record the output signal from the sensor.

(6) The bag leak detection system must be equipped with an alarm system that will sound automatically when an increase in relative particulate matter emissions over a preset level is detected. The alarm must be located where it is easily heard by plant operating personnel.

(7) For positive pressure fabric filter systems that do not duct all compartments of cells to a common stack, a bag leak detection system must be installed in each baghouse compartment or cell.

(8) Where multiple bag leak detectors are required, the system's instrumentation and alarm may be shared among detectors.

#### **§ 63.7530 How do I demonstrate initial compliance with the emission limits and work practice standards?**

(a) You must demonstrate initial compliance with each emission limit and work practice standard that applies to you by either conducting initial performance tests and establishing operating limits, as applicable, according to § 63.7520, paragraph (c) of this section, and Tables 5 and 7 to this subpart OR conducting initial fuel analyses to determine emission rates and establishing operating limits, as applicable, according to § 63.7521, paragraph (d) of this section, and Tables 6 and 8 to this subpart.

(b) New or reconstructed boilers or process heaters in one of the liquid fuel subcategories that burn only fossil fuels and other gases and do not burn any residual oil must demonstrate compliance according to § 63.7506(a).

(c) If you demonstrate compliance through performance testing, you must establish each site-specific operating limit in Tables 2 through 4 to this subpart that applies to you according to the requirements in § 63.7520, Table 7 to this subpart, and paragraph (c)(4) of this section, as applicable. You must also conduct fuel analyses according to § 63.7521 and establish maximum fuel pollutant input levels according to paragraphs (c)(1) through (3) of this section, as applicable.

(1) You must establish the maximum chlorine fuel input ( $C_{input}$ ) during the initial performance testing according to the procedures in paragraphs (c)(1)(i) through (iii) of this section.

(i) You must determine the fuel type or fuel mixture that you could burn in

your boiler or process heater that has the highest content of chlorine.

(ii) During the performance testing for HCl, you must determine the fraction of the total heat input for each fuel type burned ( $Q_i$ ) based on the fuel mixture that has the highest content of chlorine, and the average chlorine concentration of each fuel type burned ( $C_i$ ).

(iii) You must establish a maximum chlorine input level using Equation 5 of this section.

$$Cl_{input} = \sum_{i=1}^n [(C_i)(Q_i)] \quad (\text{Eq. 5})$$

Where:

$Cl_{input}$  = Maximum amount of chlorine entering the boiler or process heater through fuels burned in units of pounds per million Btu.

$C_i$  = Arithmetic average concentration of chlorine in fuel type,  $i$ , analyzed according to § 63.7521, in units of pounds per million Btu.

$Q_i$  = Fraction of total heat input from fuel type,  $i$ , based on the fuel mixture that has the highest content of chlorine. If you do not burn multiple fuel types during the performance testing, it is not necessary to determine the value of this term. Insert a value of "1" for  $Q_i$ .

$n$  = Number of different fuel types burned in your boiler or process heater for the mixture that has the highest content of chlorine.

(2) If you choose to comply with the alternative TSM emission limit instead of the particulate matter emission limit, you must establish the maximum TSM fuel input level ( $TSM_{input}$ ) during the initial performance testing according to the procedures in paragraphs (c)(2)(i) through (iii) of this section.

(i) You must determine the fuel type or fuel mixture that you could burn in your boiler or process heater that has the highest content of TSM.

(ii) During the performance testing for TSM, you must determine the fraction of total heat input from each fuel burned ( $Q_i$ ) based on the fuel mixture that has the highest content of total selected metals, and the average TSM concentration of each fuel type burned ( $M_i$ ).

(iii) You must establish a baseline TSM input level using Equation 6 of this section.

$$TSM_{input} = \sum_{i=1}^n [(M_i)(Q_i)] \quad (\text{Eq. 6})$$

Where:

$TSM_{input}$  = Maximum amount of TSM entering the boiler or process heater

through fuels burned in units of pounds per million Btu.

$M_i$  = Arithmetic average concentration of TSM in fuel type,  $i$ , analyzed according to § 63.7521, in units of pounds per million Btu.

$Q_i$  = Fraction of total heat input from based fuel type,  $i$ , based on the fuel mixture that has the highest content of TSM. If you do not burn multiple fuel types during the performance test, it is not necessary to determine the value of this term. Insert a value of "1" for  $Q_i$ .

$n$  = Number of different fuel types burned in your boiler or process heater for the mixture that has the highest content of TSM.

(3) You must establish the maximum mercury fuel input level ( $Mercury_{input}$ ) during the initial performance testing using the procedures in paragraphs (c)(3)(i) through (iii) of this section.

(i) You must determine the fuel type or fuel mixture that you could burn in your boiler or process heater that has the highest content of mercury.

(ii) During the compliance demonstration for mercury, you must determine the fraction of total heat input for each fuel burned ( $Q_i$ ) based on the fuel mixture that has the highest content of mercury, and the average mercury concentration of each fuel type burned ( $HG_i$ ).

(iii) You must establish a maximum mercury input level using Equation 7 of this section.

$$Mercury_{input} = \sum_{i=1}^n [(HG_i)(Q_i)] \quad (\text{Eq. 7})$$

Where:

$Mercury_{input}$  = Maximum amount of mercury entering the boiler or process heater through fuels burned in units of pounds per million Btu.

$HG_i$  = Arithmetic average concentration of mercury in fuel type,  $i$ , analyzed according to § 63.7521, in units of pounds per million Btu.

$Q_i$  = Fraction of total heat input from fuel type,  $i$ , based on the fuel mixture that has the highest mercury content. If you do not burn multiple fuel types during the performance test, it is not necessary to determine the value of this term. Insert a value of "1" for  $Q_i$ .

$n$  = Number of different fuel types burned in your boiler or process heater for the mixture that has the highest content of mercury.

(4) You must establish parameter operating limits according to paragraphs (c)(4)(i) through (iv) of this section.

(i) For a wet scrubber, you must establish the minimum scrubber effluent

pH, liquid flowrate, and pressure drop as defined in § 63.7575, as your operating limits during the three-run performance test. If you use a wet scrubber and you conduct separate performance tests for particulate matter, HCl, and mercury emissions, you must establish one set of minimum scrubber effluent pH, liquid flowrate, and pressure drop operating limits. The minimum scrubber effluent pH operating limit must be established during the HCl performance test. If you conduct multiple performance tests, you must set the minimum liquid flowrate and pressure drop operating limits at the highest minimum values established during the performance tests.

(ii) For an electrostatic precipitator, you must establish the minimum voltage and secondary current (or total power input), as defined in § 63.7575, as your operating limits during the three-run performance test.

(iii) For a dry scrubber, you must establish the minimum sorbent injection rate, as defined in § 63.7575, as your operating limit during the three-run performance test.

(iv) The operating limit for boilers or process heaters with fabric filters that choose to demonstrate continuous compliance through bag leak detection systems is that a bag leak detection system be installed according to the requirements in § 63.7525, and that each fabric filter must be operated such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during a 6-month period.

(d) If you elect to demonstrate compliance with an applicable emission limit through fuel analysis, you must conduct fuel analyses according to § 63.7521 and follow the procedures in paragraphs (d)(1) through (5) of this section.

(1) If you burn more than one fuel type, you must determine the fuel mixture you could burn in your boiler or process heater that would result in the maximum emission rates of the pollutants that you elect to demonstrate compliance through fuel analysis.

(2) You must determine the 90th percentile confidence level fuel pollutant concentration of the composite samples analyzed for each fuel type using the one-sided z-statistic test described in Equation 8 of this section.

$$P_{90} = \text{mean} + (\text{SD} \times t) \quad (\text{Eq. 8})$$

Where:

$P_{90}$  = 90th percentile confidence level pollutant concentration, in pounds per million Btu.

mean = Arithmetic average of the fuel pollutant concentration in the fuel samples analyzed according to § 63.7521, in units of pounds per million Btu.

SD = Standard deviation of the pollutant concentration in the fuel samples analyzed according to § 63.7521, in units of pounds per million Btu.

t = t distribution critical value for 90th percentile (0.1) probability for the appropriate degrees of freedom (number of samples minus one) as obtained from a Distribution Critical Value Table.

(3) To demonstrate compliance with the applicable emission limit for HCl, the HCl emission rate that you calculate for your boiler or process heater using Equation 9 of this section must be less than the applicable emission limit for HCl.

$$\text{HCl} = \sum_{i=1}^n [(C_{i90})(Q_i)(1.028)] \quad (\text{Eq. 9})$$

Where:

HCl = HCl emission rate from the boiler or process heater in units of pounds per million Btu.

$C_{i90}$  = 90th percentile confidence level concentration of chlorine in fuel type, i, in units of pounds per million Btu as calculated according to Equation 8 of this section.

$Q_i$  = Fraction of total heat input from fuel type, i, based on the fuel mixture that has the highest content of chlorine. If you do not burn multiple fuel types, it is not necessary to determine the value of this term. Insert a value of "1" for  $Q_i$ .

n = Number of different fuel types burned in your boiler or process heater for the mixture that has the highest content of chlorine.

1.028 = Molecular weight ratio of HCl to chlorine.

(4) To demonstrate compliance with the applicable emission limit for TSM, the TSM emission rate that you calculate for your boiler or process heater using Equation 10 of this section must be less than the applicable emission limit for TSM.

$$\text{TSM} = \sum_{i=1}^n [(M_{i90})(Q_i)] \quad (\text{Eq. 10})$$

Where:

TSM = TSM emission rate from the boiler or process heater in units of pounds per million Btu.

$M_{i90}$  = 90th percentile confidence level concentration of TSM in fuel, i, in units of pounds per million Btu as calculated according to Equation 8 of this section.

$Q_i$  = Fraction of total heat input from fuel type, i, based on the fuel mixture that has the highest content of total selected metals. If you do not burn multiple fuel types, it is not necessary to determine the value of this term. Insert a value of "1" for  $Q_i$ .

n = Number of different fuel types burned in your boiler or process heater for the mixture that has the highest content of TSM.

(5) To demonstrate compliance with the applicable emission limit for mercury, the mercury emission rate that you calculate for your boiler or process heater using Equation 11 of this section must be less than the applicable emission limit for mercury.

$$\text{Mercury} = \sum_{i=1}^n [(HG_{i90})(Q_i)] \quad (\text{Eq. 11})$$

Where:

Mercury = Mercury emission rate from the boiler or process heater in units of pounds per million Btu.

$HG_{i90}$  = 90th percentile confidence level concentration of mercury in fuel, i, in units of pounds per million Btu as calculated according to Equation 8 of this section.

$Q_i$  = Fraction of total heat input from fuel type, i, based on the fuel mixture that has the highest mercury content. If you do not burn multiple fuel types, it is not necessary to determine the value of this term. Insert a value of "1" for  $Q_i$ .

n = Number of different fuel types burned in your boiler or process heater for the mixture that has the highest mercury content.

(e) You must submit the Notification of Compliance Status containing the results of the initial compliance demonstration according to the requirements in § 63.7545(e).

### Continuous Compliance Requirements

#### § 63.7535 How do I monitor and collect data to demonstrate continuous compliance?

(a) You must monitor and collect data according to this section and the site-specific monitoring plan required by § 63.7505(d).

(b) Except for monitor malfunctions, associated repairs, and required quality assurance or control activities (including, as applicable, calibration checks and required zero and span adjustments), you must monitor continuously (or collect data at all required intervals) at all times that the affected source is operating.

(c) You may not use data recorded during monitoring malfunctions,

associated repairs, or required quality assurance or control activities in data averages and calculations used to report emission or operating levels. You must use all the data collected during all other periods in assessing the operation of the control device and associated control system. Boilers and process heaters that have an applicable carbon monoxide work practice standard and are required to install and operate a CEMS, may not use data recorded during periods when the boiler or process heater is operating at less than 50 percent of its rated capacity.

#### § 63.7540 How do I demonstrate continuous compliance with the emission limits and work practice standards?

(a) You must demonstrate continuous compliance with each emission limit, operating limit, and work practice standard in Tables 1 through 4 to this subpart that applies to you according to the methods specified in Table 8 to this subpart and paragraphs (a)(1) through (10) of this section.

(1) Following the date on which the initial performance test is completed or is required to be completed under §§ 63.7 and 63.7510, whichever date comes first, you must not operate above any of the applicable maximum operating limits or below any of the applicable minimum operating limits listed in Tables 2 through 4 to this subpart at all times except during periods of startup, shutdown and malfunction. Operating limits do not apply during performance tests. Operation above the established maximum or below the established minimum operating limits shall constitute a deviation of established operating limits.

(2) You must keep records of the type and amount of all fuels burned in each boiler or process heater during the reporting period to demonstrate that all fuel types and mixtures of fuels burned would either result in lower emissions of TSM, HCl, and mercury, than the applicable emission limit for each pollutant (if you demonstrate compliance through fuel analysis), or result in lower fuel input of TSM, chlorine, and mercury than the maximum values calculated during the last performance tests (if you demonstrate compliance through performance testing).

(3) If you demonstrate compliance with an applicable HCl emission limit through fuel analysis and you plan to burn a new type of fuel, you must recalculate the HCl emission rate using Equation 9 of § 63.7530 according to paragraphs (a)(3)(i) through (iii) of this section.

(i) You must determine the chlorine concentration for any new fuel type in units of pounds per million Btu, based on supplier data or your own fuel analysis, according to the provisions in your site-specific fuel analysis plan developed according to § 63.7521(b).

(ii) You must determine the new mixture of fuels that will have the highest content of chlorine.

(iii) Recalculate the HCl emission rate from your boiler or process heater under these new conditions using Equation 9 of § 63.7530. The recalculated HCl emission rate must be less than the applicable emission limit.

(4) If you demonstrate compliance with an applicable HCl emission limit through performance testing and you plan to burn a new type of fuel type or a new mixture of fuels, you must recalculate the maximum chlorine input using Equation 5 of § 63.7530. If the results of recalculating the maximum chlorine input using Equation 5 of § 63.7530 are higher than the maximum chlorine input level established during the previous performance test, then you must conduct a new performance test within 60 days of burning the new fuel type or fuel mixture according to the procedures in § 63.7520 to demonstrate that the HCl emissions do not exceed the emission limit. You must also establish new operating limits based on this performance test according to the procedures in § 63.7530(c).

(5) If you demonstrate compliance with an applicable TSM emission limit through fuel analysis, and you plan to burn a new type of fuel, you must recalculate the TSM emission rate using Equation 10 of § 63.7530 according to the procedures specified in paragraphs (a)(5)(i) through (iii) of this section.

(i) You must determine the TSM concentration for any new fuel type in units of pounds per million Btu, based on supplier data or your own fuel analysis, according to the provisions in your site-specific fuel analysis plan developed according to § 63.7521(b).

(ii) You must determine the new mixture of fuels that will have the highest content of TSM.

(iii) Recalculate the TSM emission rate from your boiler or process heater under these new conditions using Equation 10 of § 63.7530. The recalculated TSM emission rate must be less than the applicable emission limit.

(6) If you demonstrate compliance with an applicable TSM emission limit through performance testing, and you plan to burn a new type of fuel or a new mixture of fuels, you must recalculate the maximum TSM input using Equation 6 of § 63.7530. If the results of recalculating the maximum total

selected metals input using Equation 6 of § 63.7530 are higher than the maximum TSM input level established during the previous performance test, then you must conduct a new performance test within 60 days of burning the new fuel type or fuel mixture according to the procedures in § 63.7520 to demonstrate that the TSM emissions do not exceed the emission limit. You must also establish new operating limits based on this performance test according to the procedures in § 63.7530(c).

(7) If you demonstrate compliance with an applicable mercury emission limit through fuel analysis, and you plan to burn a new type of fuel, you must recalculate the mercury emission rate using Equation 11 of § 63.7530 according to the procedures specified in paragraphs (a)(7)(i) through (iii) of this section.

(i) You must determine the mercury concentration for any new fuel type in units of pounds per million Btu, based on supplier data or your own fuel analysis, according to the provisions in your site-specific fuel analysis plan developed according to § 63.7521(b).

(ii) You must determine the new mixture of fuels that will have the highest content of mercury.

(iii) Recalculate the mercury emission rate from your boiler or process heater under these new conditions using Equation 11 of § 63.7530. The recalculated mercury emission rate must be less than the applicable emission limit.

(8) If you demonstrate compliance with an applicable mercury emission limit through performance testing, and you plan to burn a new type of fuel or a new mixture of fuels, you must recalculate the maximum mercury input using Equation 7 of § 63.7530. If the results of recalculating the maximum mercury input using Equation 7 of § 63.7530 are higher than the maximum mercury input level established during the previous performance test, then you must conduct a new performance test within 60 days of burning the new fuel type or fuel mixture according to the procedures in § 63.7520 to demonstrate that the mercury emissions do not exceed the emission limit. You must also establish new operating limits based on this performance test according to the procedures in § 63.7530(c).

(9) If your unit is controlled with a fabric filter, and you demonstrate continuous compliance using a bag leak detection system, you must initiate corrective action within 1 hour of a bag leak detection system alarm and complete corrective actions according to

your SSMP, and operate and maintain the fabric filter system such that the alarm does not sound more than 5 percent of the operating time during a 6-month period. You must also keep records of the date, time, and duration of each alarm, the time corrective action was initiated and completed, and a brief description of the cause of the alarm and the corrective action taken. You must also record the percent of the operating time during each 6-month period that the alarm sounds. In calculating this operating time percentage, if inspection of the fabric filter demonstrates that no corrective action is required, no alarm time is counted. If corrective action is required, each alarm shall be counted as a minimum of 1 hour. If you take longer than 1 hour to initiate corrective action, the alarm time shall be counted as the actual amount of time taken to initiate corrective action.

(10) If you have an applicable work practice standard for carbon monoxide, and you are required to install a CEMS according to § 63.7525(a), then you must meet the requirements in paragraphs (a)(10)(i) through (iii) of this section.

(i) You must continuously monitor carbon monoxide according to §§ 63.7525(a) and 63.7535.

(ii) Maintain a carbon monoxide emission level below your applicable carbon monoxide work practice standard in Table 1 to this subpart at all times except during periods of startup, shutdown, malfunction, and when your boiler or process heater is operating at less than 50 percent of rated capacity.

(iii) Keep records of carbon monoxide levels according to § 63.7555(b).

(b) You must report each instance in which you did not meet each emission limit, operating limit, and work practice standard in Tables 1 through 4 to this subpart that apply to you. You must also report each instance during a startup, shutdown, or malfunction when you did not meet each applicable emission limit, operating limit, and work practice standard. These instances are deviations from the emission limits and work practice standards in this subpart. These deviations must be reported according to the requirements in § 63.7550.

(c) During periods of startup, shutdown, and malfunction, you must operate in accordance with the SSMP as required in § 63.7505(e).

(d) Consistent with §§ 63.6(e) and 63.7(e)(1), deviations that occur during a period of startup, shutdown, or malfunction are not violations if you demonstrate to the EPA Administrator's satisfaction that you were operating in accordance with your SSMP. The EPA Administrator will determine whether

deviations that occur during a period of startup, shutdown, or malfunction are violations, according to the provisions in § 63.6(e).

**§ 63.7541 How do I demonstrate continuous compliance under the emission averaging provision?**

(a) Following the compliance date, the owner or operator must demonstrate compliance with this subpart on a continuous basis by meeting the requirements of paragraphs (a)(1) through (4) of this section.

(1) For each calendar month, demonstrate compliance with the average weighted emissions limit for the existing large solid fuel boilers participating in the emissions averaging option as determined in § 63.7522(f) and (g);

(2) For each existing solid fuel boiler participating in the emissions averaging option that is equipped with a dry control system, maintain opacity at or below the applicable limit;

(3) For each existing solid fuel boiler participating in the emissions averaging option that is equipped with a wet scrubber, maintain the 3-hour average parameter values at or below the operating limits established during the most recent performance test; and

(4) For each existing solid fuel boiler participating in the emissions averaging option that has an approved alternative operating plan, maintain the 3-hour average parameter values at or below the operating limits established in the most recent performance test.

(b) Any instance where the owner or operator fails to comply with the continuous monitoring requirements in paragraphs (a)(1) through (4) of this section, except during periods of startup, shutdown, and malfunction, is a deviation.

**Notification, Reports, and Records**

**§ 63.7545 What notifications must I submit and when?**

(a) You must submit all of the notifications in §§ 63.7(b) and (c), 63.8 (e), (f)(4) and (6), and 63.9 (b) through (h) that apply to you by the dates specified.

(b) As specified in § 63.9(b)(2), if you startup your affected source before November 12, 2004, you must submit an Initial Notification not later than 120 days after November 12, 2004. The Initial Notification must include the information required in paragraphs (b)(1) and (2) of this section, as applicable.

(1) If your affected source has an annual capacity factor of greater than 10 percent, your Initial Notification must

include the information required by § 63.9(b)(2).

(2) If your affected source has a federally enforceable permit that limits the annual capacity factor to less than or equal to 10 percent such that the unit is in one of the limited use subcategories (the limited use solid fuel subcategory, the limited use liquid fuel subcategory, or the limited use gaseous fuel subcategory), your Initial Notification must include the information required by § 63.9(b)(2) and also a signed statement indicating your affected source has a federally enforceable permit that limits the annual capacity factor to less than or equal to 10 percent.

(c) As specified in § 63.9(b)(4) and (b)(5), if you startup your new or reconstructed affected source on or after November 12, 2004, you must submit an Initial Notification not later than 15 days after the actual date of startup of the affected source.

(d) If you are required to conduct a performance test you must submit a Notification of Intent to conduct a performance test at least 30 days before the performance test is scheduled to begin.

(e) If you are required to conduct an initial compliance demonstration as specified in § 63.7530(a), you must submit a Notification of Compliance Status according to § 63.9(h)(2)(ii). For each initial compliance demonstration, you must submit the Notification of Compliance Status, including all performance test results and fuel analyses, before the close of business on the 60th day following the completion of the performance test and/or other initial compliance demonstrations according to § 63.10(d)(2). The Notification of Compliance Status report must contain all the information specified in paragraphs (e)(1) through (9), as applicable.

(1) A description of the affected source(s) including identification of which subcategory the source is in, the capacity of the source, a description of the add-on controls used on the source description of the fuel(s) burned, and justification for the fuel(s) burned during the performance test.

(2) Summary of the results of all performance tests, fuel analyses, and calculations conducted to demonstrate initial compliance including all established operating limits.

(3) Identification of whether you are complying with the particulate matter emission limit or the alternative total selected metals emission limit.

(4) Identification of whether you plan to demonstrate compliance with each

applicable emission limit through performance testing or fuel analysis.

(5) Identification of whether you plan to demonstrate compliance by emissions averaging.

(6) A signed certification that you have met all applicable emission limits and work practice standards.

(7) A summary of the carbon monoxide emissions monitoring data and the maximum carbon monoxide emission levels recorded during the performance test to show that you have met any applicable work practice standard in Table 1 to this subpart.

(8) If your new or reconstructed boiler or process heater is in one of the liquid fuel subcategories and burns only liquid fossil fuels other than residual oil either alone or in combination with gaseous fuels, you must submit a signed statement certifying this in your Notification of Compliance Status report.

(9) If you had a deviation from any emission limit or work practice standard, you must also submit a description of the deviation, the duration of the deviation, and the corrective action taken in the Notification of Compliance Status report.

**§ 63.7550 What reports must I submit and when?**

(a) You must submit each report in Table 9 to this subpart that applies to you.

(b) Unless the EPA Administrator has approved a different schedule for submission of reports under § 63.10(a), you must submit each report by the date in Table 9 to this subpart and according to the requirements in paragraphs (b)(1) through (5) of this section.

(1) The first compliance report must cover the period beginning on the compliance date that is specified for your affected source in § 63.7495 and ending on June 30 or December 31, whichever date is the first date that occurs at least 180 days after the compliance date that is specified for your source in § 63.7495.

(2) The first compliance report must be postmarked or delivered no later than July 31 or January 31, whichever date is the first date following the end of the first calendar half after the compliance date that is specified for your source in § 63.7495.

(3) Each subsequent compliance report must cover the semiannual reporting period from January 1 through June 30 or the semiannual reporting period from July 1 through December 31.

(4) Each subsequent compliance report must be postmarked or delivered



no later than July 31 or January 31, whichever date is the first date following the end of the semiannual reporting period.

(5) For each affected source that is subject to permitting regulations pursuant to 40 CFR part 70 or 40 CFR part 71, and if the permitting authority has established dates for submitting semiannual reports pursuant to 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), you may submit the first and subsequent compliance reports according to the dates the permitting authority has established instead of according to the dates in paragraphs (b)(1) through (4) of this section.

(c) The compliance report must contain the information required in paragraphs (c)(1) through (11) of this section.

(1) Company name and address.

(2) Statement by a responsible official with that official's name, title, and signature, certifying the truth, accuracy, and completeness of the content of the report.

(3) Date of report and beginning and ending dates of the reporting period.

(4) The total fuel use by each affected source subject to an emission limit, for each calendar month within the semiannual reporting period, including, but not limited to, a description of the fuel and the total fuel usage amount with units of measure.

(5) A summary of the results of the annual performance tests and documentation of any operating limits that were reestablished during this test, if applicable.

(6) A signed statement indicating that you burned no new types of fuel. Or, if you did burn a new type of fuel, you must submit the calculation of chlorine input, using Equation 5 of § 63.7530, that demonstrates that your source is still within its maximum chlorine input level established during the previous performance testing (for sources that demonstrate compliance through performance testing) or you must submit the calculation of HCl emission rate using Equation 9 of § 63.7530 that demonstrates that your source is still meeting the emission limit for HCl emissions (for boilers or process heaters that demonstrate compliance through fuel analysis). If you burned a new type of fuel, you must submit the calculation of TSM input, using Equation 6 of § 63.7530, that demonstrates that your source is still within its maximum TSM input level established during the previous performance testing (for sources that demonstrate compliance through performance testing), or you must submit the calculation of TSM emission rate using Equation 10 of

§ 63.7530 that demonstrates that your source is still meeting the emission limit for TSM emissions (for boilers or process heaters that demonstrate compliance through fuel analysis). If you burned a new type of fuel, you must submit the calculation of mercury input, using Equation 7 of § 63.7530, that demonstrates that your source is still within its maximum mercury input level established during the previous performance testing (for sources that demonstrate compliance through performance testing), or you must submit the calculation of mercury emission rate using Equation 11 of § 63.7530 that demonstrates that your source is still meeting the emission limit for mercury emissions (for boilers or process heaters that demonstrate compliance through fuel analysis).

(7) If you wish to burn a new type of fuel and you can not demonstrate compliance with the maximum chlorine input operating limit using Equation 5 of § 63.7530, the maximum TSM input operating limit using Equation 6 of § 63.7530, or the maximum mercury input operating limit using Equation 7 of § 63.7530, you must include in the compliance report a statement indicating the intent to conduct a new performance test within 60 days of starting to burn the new fuel.

(8) The hours of operation for each boiler and process heater that is subject to an emission limit for each calendar month within the semiannual reporting period. This requirement applies only to limited use boilers and process heaters.

(9) If you had a startup, shutdown, or malfunction during the reporting period and you took actions consistent with your SSMP, the compliance report must include the information in § 63.10(d)(5)(i).

(10) If there are no deviations from any emission limits or operating limits in this subpart that apply to you, and there are no deviations from the requirements for work practice standards in this subpart, a statement that there were no deviations from the emission limits, operating limits, or work practice standards during the reporting period.

(11) If there were no periods during which the CMSs, including CEMS, COMS, and CPMS, were out of control as specified in § 63.8(c)(7), a statement that there were no periods during which the CMSs were out of control during the reporting period.

(d) For each deviation from an emission limit or operating limit in this subpart and for each deviation from the requirements for work practice standards in this subpart that occurs at an affected source where you are not

using a CMSs to comply with that emission limit, operating limit, or work practice standard, the compliance report must contain the information in paragraphs (c)(1) through (10) of this section and the information required in paragraphs (d)(1) through (4) of this section. This includes periods of startup, shutdown, and malfunction.

(1) The total operating time of each affected source during the reporting period.

(2) A description of the deviation and which emission limit, operating limit, or work practice standard from which you deviated.

(3) Information on the number, duration, and cause of deviations (including unknown cause), as applicable, and the corrective action taken.

(4) A copy of the test report if the annual performance test showed a deviation from the emission limit for particulate matter or the alternative TSM limit, a deviation from the HCl emission limit, or a deviation from the mercury emission limit.

(e) For each deviation from an emission limitation and operating limit or work practice standard in this subpart occurring at an affected source where you are using a CMS to comply with that emission limit, operating limit, or work practice standard, you must include the information in paragraphs (c) (1) through (10) of this section and the information required in paragraphs (e) (1) through (12) of this section. This includes periods of startup, shutdown, and malfunction and any deviations from your site-specific monitoring plan as required in § 63.7505(d).

(1) The date and time that each malfunction started and stopped and description of the nature of the deviation (*i.e.*, what you deviated from).

(2) The date and time that each CMS was inoperative, except for zero (low-level) and high-level checks.

(3) The date, time, and duration that each CMS was out of control, including the information in § 63.8(c)(8).

(4) The date and time that each deviation started and stopped, and whether each deviation occurred during a period of startup, shutdown, or malfunction or during another period.

(5) A summary of the total duration of the deviation during the reporting period and the total duration as a percent of the total source operating time during that reporting period.

(6) A breakdown of the total duration of the deviations during the reporting period into those that are due to startup, shutdown, control equipment problems,



process problems, other known causes, and other unknown causes.

(7) A summary of the total duration of CMSs downtime during the reporting period and the total duration of CMS downtime as a percent of the total source operating time during that reporting period.

(8) An identification of each parameter that was monitored at the affected source for which there was a deviation, including opacity, carbon monoxide, and operating parameters for wet scrubbers and other control devices.

(9) A brief description of the source for which there was a deviation.

(10) A brief description of each CMS for which there was a deviation.

(11) The date of the latest CMS certification or audit for the system for which there was a deviation.

(12) A description of any changes in CMSs, processes, or controls since the last reporting period for the source for which there was a deviation.

(f) Each affected source that has obtained a title V operating permit pursuant to 40 CFR part 70 or 40 CFR part 71 must report all deviations as defined in this subpart in the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A). If an affected source submits a compliance report pursuant to Table 9 to this subpart along with, or as part of, the semiannual monitoring report required by 40 CFR 70.6(a)(3)(iii)(A) or 40 CFR 71.6(a)(3)(iii)(A), and the compliance report includes all required information concerning deviations from any emission limit, operating limit, or work practice requirement in this subpart, submission of the compliance report satisfies any obligation to report the same deviations in the semiannual monitoring report. However, submission of a compliance report does not otherwise affect any obligation the affected source may have to report deviations from permit requirements to the permit authority.

(g) If you operate a new gaseous fuel unit that is subject to the work practice standard specified in Table 1 to this subpart, and you intend to use a fuel other than natural gas or equivalent to fire the affected unit, you must submit a notification of alternative fuel use within 48 hours of the declaration of a period of natural gas curtailment or supply interruption, as defined in § 63.7575. The notification must include the information specified in paragraphs (g)(1) through (5) of this section.

(1) Company name and address.

(2) Identification of the affected unit.

(3) Reason you are unable to use natural gas or equivalent fuel, including

the date when the natural gas curtailment was declared or the natural gas supply interruption began.

(4) Type of alternative fuel that you intend to use.

(5) Dates when the alternative fuel use is expected to begin and end.

#### **§ 63.7555 What records must I keep?**

(a) You must keep records according to paragraphs (a)(1) through (3) of this section.

(1) A copy of each notification and report that you submitted to comply with this subpart, including all documentation supporting any Initial Notification or Notification of Compliance Status or semiannual compliance report that you submitted, according to the requirements in § 63.10(b)(2)(xiv).

(2) The records in § 63.6(e)(3)(iii) through (v) related to startup, shutdown, and malfunction.

(3) Records of performance tests, fuel analyses, or other compliance demonstrations, performance evaluations, and opacity observations as required in § 63.10(b)(2)(viii).

(b) For each CEMS, CPMS, and COMS, you must keep records according to paragraphs (b)(1) through (5) of this section.

(1) Records described in § 63.10(b)(2)(vi) through (xi).

(2) Monitoring data for continuous opacity monitoring system during a performance evaluation as required in § 63.6(h)(7)(i) and (ii).

(3) Previous (*i.e.*, superseded) versions of the performance evaluation plan as required in § 63.8(d)(3).

(4) Request for alternatives to relative accuracy test for CEMS as required in § 63.8(f)(6)(i).

(5) Records of the date and time that each deviation started and stopped, and whether the deviation occurred during a period of startup, shutdown, or malfunction or during another period.

(c) You must keep the records required in Table 8 to this subpart including records of all monitoring data and calculated averages for applicable operating limits such as opacity, pressure drop, carbon monoxide, and pH to show continuous compliance with each emission limit, operating limit, and work practice standard that applies to you.

(d) For each boiler or process heater subject to an emission limit, you must also keep the records in paragraphs (d)(1) through (5) of this section.

(1) You must keep records of monthly fuel use by each boiler or process heater, including the type(s) of fuel and amount(s) used.

(2) You must keep records of monthly hours of operation by each boiler or

process heater. This requirement applies only to limited-use boilers and process heaters.

(3) A copy of all calculations and supporting documentation of maximum chlorine fuel input, using Equation 5 of § 63.7530, that were done to demonstrate continuous compliance with the HCl emission limit, for sources that demonstrate compliance through performance testing. For sources that demonstrate compliance through fuel analysis, a copy of all calculations and supporting documentation of HCl emission rates, using Equation 9 of § 63.7530, that were done to demonstrate compliance with the HCl emission limit. Supporting documentation should include results of any fuel analyses and basis for the estimates of maximum chlorine fuel input or HCl emission rates. You can use the results from one fuel analysis for multiple boilers and process heaters provided they are all burning the same fuel type. However, you must calculate chlorine fuel input, or HCl emission rate, for each boiler and process heater.

(4) A copy of all calculations and supporting documentation of maximum TSM fuel input, using Equation 6 of § 63.7530, that were done to demonstrate continuous compliance with the TSM emission limit for sources that demonstrate compliance through performance testing. For sources that demonstrate compliance through fuel analysis, a copy of all calculations and supporting documentation of TSM emission rates, using Equation 10 of § 63.7530, that were done to demonstrate compliance with the TSM emission limit. Supporting documentation should include results of any fuel analyses and basis for the estimates of maximum TSM fuel input or TSM emission rates. You can use the results from one fuel analysis for multiple boilers and process heaters provided they are all burning the same fuel type. However, you must calculate TSM fuel input, or TSM emission rates, for each boiler and process heater.

(5) A copy of all calculations and supporting documentation of maximum mercury fuel input, using Equation 7 of § 63.7530, that were done to demonstrate continuous compliance with the mercury emission limit for sources that demonstrate compliance through performance testing. For sources that demonstrate compliance through fuel analysis, a copy of all calculations and supporting documentation of mercury emission rates, using Equation 11 of § 63.7530, that were done to demonstrate compliance with the mercury emission limit. Supporting documentation should

include results of any fuel analyses and basis for the estimates of maximum mercury fuel input or mercury emission rates. You can use the results from one fuel analysis for multiple boilers and process heaters provided they are all burning the same fuel type. However, you must calculate mercury fuel input, or mercury emission rates, for each boiler and process heater.

(e) If your boiler or process heater is subject to an emission limit or work practice standard in Table 1 to this subpart and has a federally enforceable permit that limits the annual capacity factor to less than or equal to 10 percent such that the unit is in one of the limited use subcategories, you must keep the records in paragraphs (e)(1) and (2) of this section.

(1) A copy of the federally enforceable permit that limits the annual capacity factor of the source to less than or equal to 10 percent.

(2) Fuel use records for the days the boiler or process heater was operating.

**§ 63.7560 In what form and how long must I keep my records?**

(a) Your records must be in a form suitable and readily available for expeditious review, according to § 63.10(b)(1).

(b) As specified in § 63.10(b)(1), you must keep each record for 5 years following the date of each occurrence, measurement, maintenance, corrective action, report, or record.

(c) You must keep each record on site for at least 2 years after the date of each occurrence, measurement, maintenance, corrective action, report, or record, according to § 63.10(b)(1). You can keep the records off site for the remaining 3 years.

**Other Requirements and Information**

**§ 63.7565 What parts of the General Provisions apply to me?**

Table 10 to this subpart shows which parts of the General Provisions in §§ 63.1 through 63.15 apply to you.

**§ 63.7570 Who implements and enforces this subpart?**

(a) This subpart can be implemented and enforced by U.S. EPA, or a delegated authority such as your State, local, or tribal agency. If the EPA Administrator has delegated authority to your State, local, or tribal agency, then that agency (as well as the U.S. EPA) has the authority to implement and enforce this subpart. You should contact your EPA Regional Office to find out if this subpart is delegated to your State, local, or tribal agency.

(b) In delegating implementation and enforcement authority of this subpart to

a State, local, or tribal agency under 40 CFR part 63, subpart E, the authorities listed in paragraphs (b)(1) through (5) of this section are retained by the EPA Administrator and are not transferred to the State, local, or tribal agency, however, the U.S. EPA retains oversight of this subpart and can take enforcement actions, as appropriate.

(1) Approval of alternatives to the non-opacity emission limits and work practice standards in § 63.7500(a) and (b) under § 63.6(g).

(2) Approval of alternative opacity emission limits in § 63.7500(a) under § 63.6(h)(9).

(3) Approval of major change to test methods in Table 5 to this subpart under § 63.7(e)(2)(ii) and (f) and as defined in § 63.90.

(4) Approval of major change to monitoring under § 63.8(f) and as defined in § 63.90.

(5) Approval of major change to recordkeeping and reporting under § 63.10(f) and as defined in § 63.90.

**§ 63.7575 What definitions apply to this subpart?**

Terms used in this subpart are defined in the CAA, in § 63.2 (the General Provisions), and in this section as follows:

*Annual capacity factor* means the ratio between the actual heat input to a boiler or process heater from the fuels burned during a calendar year, and the potential heat input to the boiler or process heater had it been operated for 8,760 hours during a year at the maximum steady state design heat input capacity.

*Bag leak detection system* means an instrument that is capable of monitoring particulate matter loadings in the exhaust of a fabric filter (*i.e.*, baghouse) in order to detect bag failures. A bag leak detection system includes, but is not limited to, an instrument that operates on electrodynamic, triboelectric, light scattering, light transmittance, or other principle to monitor relative particulate matter loadings.

*Biomass fuel* means unadulterated wood as defined in this subpart, wood residue, and wood products (*e.g.*, trees, tree stumps, tree limbs, bark, lumber, sawdust, sanderdust, chips, scraps, slabs, millings, and shavings); animal litter; vegetative agricultural and silvicultural materials, such as logging residues (slash), nut and grain hulls and chaff (*e.g.*, almond, walnut, peanut, rice, and wheat), bagasse, orchard prunings, corn stalks, coffee bean hulls and grounds.

*Blast furnace gas fuel-fired boiler or process heater* means an industrial/

commercial/institutional boiler or process heater that receives 90 percent or more of its total heat input (based on an annual average) from blast furnace gas.

*Boiler* means an enclosed device using controlled flame combustion and having the primary purpose of recovering thermal energy in the form of steam or hot water. Waste heat boilers are excluded from this definition.

*Coal* means all solid fuels classifiable as anthracite, bituminous, sub-bituminous, or lignite by the American Society for Testing and Materials in ASTM D388–991<sup>1</sup>, “Standard Specification for Classification of Coals by Rank” (incorporated by reference, see § 63.14(b)), coal refuse, and petroleum coke. Synthetic fuels derived from coal for the purpose of creating useful heat including but not limited to, solvent-refined coal, coal-oil mixtures, and coal-water mixtures, for the purposes of this subpart. Coal derived gases are excluded from this definition.

*Coal refuse* means any by-product of coal mining or coal cleaning operations with an ash content greater than 50 percent (by weight) and a heating value less than 13,900 kilojoules per kilogram (6,000 Btu per pound) on a dry basis.

*Commercial/institutional boiler* means a boiler used in commercial establishments or institutional establishments such as medical centers, research centers, institutions of higher education, hotels, and laundries to provide electricity, steam, and/or hot water.

*Construction/demolition material* means waste building material that result from the construction or demolition operations on houses and commercial and industrial buildings.

*Deviation.* (1) Deviation means any instance in which an affected source subject to this subpart, or an owner or operator of such a source:

(i) Fails to meet any requirement or obligation established by this subpart including, but not limited to, any emission limit, operating limit, or work practice standard;

(ii) Fails to meet any term or condition that is adopted to implement an applicable requirement in this subpart and that is included in the operating permit for any affected source required to obtain such a permit; or

(iii) Fails to meet any emission limit, operating limit, or work practice standard in this subpart during startup, shutdown, or malfunction, regardless of whether or not such failure is permitted by this subpart.

(2) A deviation is not always a violation. The determination of whether a deviation constitutes a violation of the

standard is up to the discretion of the entity responsible for enforcement of the standards.

*Distillate oil* means fuel oils, including recycled oils, that comply with the specifications for fuel oil numbers 1 and 2, as defined by the American Society for Testing and Materials in ASTM D396-02a, "Standard Specifications for Fuel Oils" (incorporated by reference, see § 63.14(b)).

*Dry scrubber* means an add-on air pollution control system that injects dry alkaline sorbent (dry injection) or sprays an alkaline sorbent (spray dryer) to react with and neutralize acid gas in the exhaust stream forming a dry powder material. Sorbent injection systems in fluidized bed boilers and process heaters are included in this definition.

*Electric utility steam generating unit* means a fossil fuel-fired combustion unit of more than 25 megawatts that serves a generator that produces electricity for sale. A fossil fuel-fired unit that cogenerates steam and electricity and supplies more than one-third of its potential electric output capacity and more than 25 megawatts electrical output to any utility power distribution system for sale is considered an electric utility steam generating unit.

*Electrostatic precipitator* means an add-on air pollution control device used to capture particulate matter by charging the particles using an electrostatic field, collecting the particles using a grounded collecting surface, and transporting the particles into a hopper.

*Fabric filter* means an add-on air pollution control device used to capture particulate matter by filtering gas streams through filter media, also known as a baghouse.

*Federally enforceable* means all limitations and conditions that are enforceable by the EPA Administrator, including the requirements of 40 CFR parts 60 and 61, requirements within any applicable State implementation plan, and any permit requirements established under 40 CFR 52.21 or under 40 CFR 51.18 and 40 CFR 51.24.

*Firetube boiler* means a boiler in which hot gases of combustion pass through the tubes and water contacts the outside surfaces of the tubes.

*Fossil fuel* means natural gas, petroleum, coal, and any form of solid, liquid, or gaseous fuel derived from such materials.

*Fuel type* means each category of fuels that share a common name or classification. Examples include, but are not limited to, bituminous coal, subbituminous coal, lignite, anthracite, biomass, construction/demolition

material, salt water laden wood, creosote treated wood, tires, residual oil. Individual fuel types received from different suppliers are not considered new fuel types except for construction/demolition material.

*Gaseous fuel* includes, but is not limited to, natural gas, process gas, landfill gas, coal derived gas, refinery gas, and biogas. Blast furnace gas is exempted from this definition.

*Heat input* means heat derived from combustion of fuel in a boiler or process heater and does not include the heat input from preheated combustion air, recirculated flue gases, or exhaust gases from other sources such as gas turbines, internal combustion engines, kilns, etc.

*Hot water heater* means a closed vessel with a capacity of no more than 120 U.S. gallons in which water is heated by combustion of gaseous or liquid fuel and is withdrawn for use external to the vessel at pressures not exceeding 160 psig, including the apparatus by which the heat is generated and all controls and devices necessary to prevent water temperatures from exceeding 210°F (99°C).

*Industrial boiler* means a boiler used in manufacturing, processing, mining, and refining or any other industry to provide steam, hot water, and/or electricity.

*Large gaseous fuel subcategory* includes any watertube boiler or process heater that burns gaseous fuels not combined with any solid fuels, burns liquid fuel only during periods of gas curtailment or gas supply emergencies, has a rated capacity of greater than 10 MMBtu per hour heat input, and has an annual capacity factor of greater than 10 percent.

*Large liquid fuel subcategory* includes any watertube boiler or process heater that does not burn any solid fuel and burns any liquid fuel either alone or in combination with gaseous fuels, has a rated capacity of greater than 10 MMBtu per hour heat input, and has an annual capacity factor of greater than 10 percent. Large gaseous fuel boilers and process heaters that burn liquid fuel during periods of gas curtailment or gas supply emergencies are not included in this definition.

*Large solid fuel subcategory* includes any watertube boiler or process heater that burns any amount of solid fuel either alone or in combination with liquid or gaseous fuels, has a rated capacity of greater than 10 MMBtu per hour heat input, and has an annual capacity factor of greater than 10 percent.

*Limited use gaseous fuel subcategory* includes any watertube boiler or process heater that burns gaseous fuels not

combined with any liquid or solid fuels, burns liquid fuel only during periods of gas curtailment or gas supply emergencies, has a rated capacity of greater than 10 MMBtu per hour heat input, and has a federally enforceable annual average capacity factor of equal to or less than 10 percent.

*Limited use liquid fuel subcategory* includes any watertube boiler or process heater that does not burn any solid fuel and burns any liquid fuel either alone or in combination with gaseous fuels, has a rated capacity of greater than 10 MMBtu per hour heat input, and has a federally enforceable annual average capacity factor of equal to or less than 10 percent. Limited use gaseous fuel boilers and process heaters that burn liquid fuel during periods of gas curtailment or gas supply emergencies are not included in this definition.

*Limited use solid fuel subcategory* includes any watertube boiler or process heater that burns any amount of solid fuel either alone or in combination with liquid or gaseous fuels, has a rated capacity of greater than 10 MMBtu per hour heat input, and has a federally enforceable annual average capacity factor of equal to or less than 10 percent.

*Liquid fossil fuel* means petroleum, distillate oil, residual oil and any form of liquid fuel derived from such material.

*Liquid fuel* includes, but is not limited to, distillate oil, residual oil, waste oil, and process liquids.

*Minimum pressure drop* means 90 percent of the lowest test-run average pressure drop measured according to Table 7 to this subpart during the most recent performance test demonstrating compliance with the applicable emission limit.

*Minimum scrubber effluent pH* means 90 percent of the lowest test-run average effluent pH measured at the outlet of the wet scrubber according to Table 7 to this subpart during the most recent performance test demonstrating compliance with the applicable hydrogen chloride emission limit.

*Minimum scrubber flow rate* means 90 percent of the lowest test-run average flow rate measured according to Table 7 to this subpart during the most recent performance test demonstrating compliance with the applicable emission limit.

*Minimum sorbent flow rate* means 90 percent of the lowest test-run average sorbent (or activated carbon) flow rate measured according to Table 7 to this subpart during the most recent performance test demonstrating compliance with the applicable emission limits.

*Minimum voltage or amperage* means 90 percent of the lowest test-run average voltage or amperage to the electrostatic precipitator measured according to Table 7 to this subpart during the most recent performance test demonstrating compliance with the applicable emission limits.

*Natural gas* means:

(1) A naturally occurring mixture of hydrocarbon and nonhydrocarbon gases found in geologic formations beneath the earth's surface, of which the principal constituent is methane; or

(2) Liquid petroleum gas, as defined by the American Society for Testing and Materials in ASTM D1835-03a, "Standard Specification for Liquid Petroleum Gases" (incorporated by reference, see § 63.14(b)).

*Opacity* means the degree to which emissions reduce the transmission of light and obscure the view of an object in the background.

*Particulate matter* means any finely divided solid or liquid material, other than uncombined water, as measured by the test methods specified under this subpart, or an alternative method.

*Period of natural gas curtailment or supply interruption* means a period of time during which the supply of natural gas to an affected facility is halted for reasons beyond the control of the facility. An increase in the cost or unit price of natural gas does not constitute a period of natural gas curtailment or supply interruption.

*Process heater* means an enclosed device using controlled flame, that is not a boiler, and the unit's primary purpose is to transfer heat indirectly to a process material (liquid, gas, or solid) or to a heat transfer material for use in a process unit, instead of generating steam. Process heaters are devices in which the combustion gases do not directly come into contact with process materials. Process heaters do not include units used for comfort heat or space heat, food preparation for on-site consumption, or autoclaves.

*Residual oil* means crude oil, and all fuel oil numbers 4, 5 and 6, as defined

by the American Society for Testing and Materials in ASTM D396-02a, "Standard Specifications for Fuel Oils" (incorporated by reference, see § 63.14(b)).

*Responsible official* means responsible official as defined in 40 CFR 70.2.

*Small gaseous fuel subcategory* includes any firetube boiler that burns gaseous fuels not combined with any solid fuels and burns liquid fuel only during periods of gas curtailment or gas supply emergencies, and any boiler or process heater that burns gaseous fuels not combined with any solid fuels, burns liquid fuel only during periods of gas curtailment or gas supply emergencies, and has a rated capacity of less than or equal to 10 MMBtu per hour heat input.

*Small liquid fuel subcategory* includes any firetube boiler that does not burn any solid fuel and burns any liquid fuel either alone or in combination with gaseous fuels, and any boiler or process heater that does not burn any solid fuel and burns any liquid fuel either alone or in combination with gaseous fuels, and has a rated capacity of less than or equal to 10 MMBtu per hour heat input. Small gaseous fuel boilers and process heaters that burn liquid fuel during periods of gas curtailment or gas supply emergencies are not included in this definition.

*Small solid fuel subcategory* includes any firetube boiler that burns any amount of solid fuel either alone or in combination with liquid or gaseous fuels, and any other boiler or process heater that burns any amount of solid fuel either alone or in combination with liquid or gaseous fuels and has a rated capacity of less than or equal to 10 MMBtu per hour heat input.

*Solid fuel* includes, but is not limited to, coal, wood, biomass, tires, plastics, and other nonfossil solid materials.

*Temporary boiler* means any gaseous or liquid fuel boiler that is designed to, and is capable of, being carried or moved from one location to another. A temporary boiler that remains at a

location for more than 180 consecutive days is no longer considered to be a temporary boiler. Any temporary boiler that replaces a temporary boiler at a location and is intended to perform the same or similar function will be included in calculating the consecutive time period.

*Total selected metals* means the combination of the following metallic HAP: arsenic, beryllium, cadmium, chromium, lead, manganese, nickel and selenium.

*Unadulterated wood* means wood or wood products that have not been painted, pigment-stained, or pressure treated with compounds such as chromate copper arsenate, pentachlorophenol, and creosote. Plywood, particle board, oriented strand board, and other types of wood products bound by glues and resins are included in this definition.

*Waste heat boiler* means a device that recovers normally unused energy and converts it to usable heat. Waste heat boilers incorporating duct or supplemental burners that are designed to supply 50 percent or more of the total rated heat input capacity of the waste heat boiler are not considered waste heat boilers, but are considered boilers. Waste heat boilers are also referred to as heat recovery steam generators.

*Watertube boiler* means a boiler in which water passes through the tubes and hot gases of combustion pass over the outside surfaces of the tubes.

*Wet scrubber* means any add-on air pollution control device that mixes an aqueous stream or slurry with the exhaust gases from a boiler or process heater to control emissions of particulate matter and/or to absorb and neutralize acid gases, such as hydrogen chloride.

*Work practice standard* means any design, equipment, work practice, or operational standard, or combination thereof, that is promulgated pursuant to section 112(h) of the CAA.

#### Tables to Subpart DDDDD of Part 63

TABLE 1 TO SUBPART DDDDD OF PART 63.—EMISSION LIMITS AND WORK PRACTICE STANDARDS

As stated in § 63.7500, you must comply with the following applicable emission limits and work practice standards:

If your boiler or process heater is in this subcategory . . .	For the following pollutants . . .	You must meet the following emission limits and work practice standards . . .
1. New or reconstructed large solid fuel .....	a. Particulate Matter (or Total Selected Metals). b. Hydrogen Chloride ..... c. Mercury ..... d. Carbon Monoxide .....	0.025 lb per MMBtu of heat input; or (0.0003 lb per MMBtu of heat input). 0.02 lb per MMBtu of heat input. 0.000003 lb per MMBtu of heat input. 400 ppm by volume on a dry basis corrected to 7 percent oxygen (30-day rolling average for units 100 MMBtu/hr or greater, 3-run average for units less than 100 MMBtu/hr).

TABLE 1 TO SUBPART DDDDD OF PART 63.—EMISSION LIMITS AND WORK PRACTICE STANDARDS—Continued

As stated in § 63.7500, you must comply with the following applicable emission limits and work practice standards:

If your boiler or process heater is in this sub-category . . .	For the following pollutants . . .	You must meet the following emission limits and work practice standards . . .
2. New or reconstructed limited use solid fuel ...	a. Particulate Matter (or Total Selected Metals). b. Hydrogen Chloride ..... c. Mercury ..... d. Carbon Monoxide .....	0.025 lb per MMBtu of heat input; or (0.0003 lb per MMBtu of heat input). 0.02 lb per MMBtu of heat input. 0.000003 lb per MMBtu of heat input. 400 ppm by volume on a dry basis corrected to 7 percent oxygen (3-run average).
3. New or reconstructed small solid fuel .....	a. Particulate Matter (or Total Selected Metals). b. Hydrogen Chloride ..... c. Mercury ..... d. Carbon Monoxide .....	0.025 lb per MMBtu of heat input; or (0.0003 lb per MMBtu of heat input). 0.02 lb per MMBtu of heat input. 0.000003 lb per MMBtu of heat input. 400 ppm by volume on a dry basis corrected to 3 percent oxygen (30-day rolling average for units 100 MMBtu/hr or greater, 3-run average for units less than 100 MMBtu/hr).
4. New reconstructed large liquid fuel .....	a. Particulate Matter ..... b. Hydrogen Chloride ..... c. Carbon Monoxide .....	0.03 lb per MMBtu of heat input. 0.0005 lb per MMBtu of heat input. 400 ppm by volume on a dry basis corrected to 3 percent oxygen (30-day rolling average for units 100 MMBtu/hr or greater, 3-run average for units less than 100 MMBtu/hr).
5. New or reconstructed limited use liquid fuel ..	a. Particulate Matter ..... b. Hydrogen Chloride ..... c. Carbon Monoxide .....	0.03 lb per MMBtu of heat input. 0.0009 lb per MMBtu of heat input. 400 ppm by volume on a dry basis liquid corrected to 3 percent oxygen (3-run average).
6. New or reconstructed small liquid fuel .....	a. Particulate Matter ..... b. Hydrogen Chloride ..... c. Carbon Monoxide .....	0.03 lb per MMBtu of heat input. 0.0009 lb per MMBtu of heat input. 400 ppm by volume on a dry basis corrected to 3 percent oxygen (30-day rolling average for units 100 MMBtu/hr or greater, 3-run average for units less than 100 MMBtu/hr).
7. New reconstructed large gaseous fuel .....	a. Particulate Matter ..... b. Hydrogen Chloride ..... c. Carbon Monoxide .....	0.03 lb per MMBtu of heat input. 0.0009 lb per MMBtu of heat input. 400 ppm by volume on a dry basis corrected to 3 percent oxygen (30-day rolling average for units 100 MMBtu/hr or greater, 3-run average for units less than 100 MMBtu/hr).
8. New or reconstructed limited use gaseous fuel.	Carbon Monoxide .....	400 ppm by volume on a dry basis corrected to 3 percent oxygen (3-run average).
9. Existing large solid fuel .....	a. Particulate Matter (or Total Selected Metals). b. Hydrogen Chloride ..... c. Mercury .....	0.07 lb per MMBtu of heat input; or (0.001 lb per MMBtu of heat input). 0.09 lb per MMBtu of heat input. 0.000009 lb per MMBtu of heat input.
10. Existing limited use solid fuel .....	Particulate Matter (or Total Selected Metals) ..	0.21 lb per MMBtu of heat input; or (0.004 lb per MMBtu of heat input).

TABLE 2 TO SUBPART DDDDD OF PART 63.—OPERATING LIMITS FOR BOILERS AND PROCESS HEATERS WITH PARTICULATE MATTER EMISSION LIMITS

As stated in § 63.7500, you must comply with the applicable operating limits:

If you demonstrate compliance with applicable particulate matter emission limits using . . .	You must meet these operating limits . . .
1. Wet scrubber control .....	a. Maintain the minimum pressure drop and liquid flow-rate at or above the operating levels established during the performance test according to § 63.7530(c) and Table 7 to this subpart that demonstrated compliance with the applicable emission limit for particulate matter.
2. Fabric filter control .....	a. Install and operate a bag leak detection system according to § 63.7525 and operate the fabric filter such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during each 6-month period; or b. This option is for boilers and process heaters that operate dry control systems. Existing boilers and process heaters must maintain opacity to less than or equal to 20 percent (6-minute average) except for one 6-minute period per hour of not more than 27 percent. New boilers and process heaters must maintain opacity to less than or equal to 10 percent opacity (1-hour block average).
3. Electrostatic precipitator control .....	a. This option is for boilers and process heaters that operate dry control systems. Existing boilers and process heaters must maintain opacity to less than or equal to 20 percent (6-minute average) except for one 6-minute period per hour of not more than 27 percent. New boilers and process heaters must maintain opacity to less than or equal to 10 percent opacity (1-hour block average); or

TABLE 2 TO SUBPART DDDDD OF PART 63.—OPERATING LIMITS FOR BOILERS AND PROCESS HEATERS WITH PARTICULATE MATTER EMISSION LIMITS—Continued

As stated in § 63.7500, you must comply with the applicable operating limits:

If you demonstrate compliance with applicable particulate matter emission limits using . . .	You must meet these operating limits . . .
4. Any other control type .....	<p>b. This option is only for boilers and process heaters that operate additional wet control systems. Maintain the minimum voltage and secondary current or total power input of the electrostatic precipitator at or above the operating limits established during the performance test according to § 63.7530(c) and Table 7 to this subpart that demonstrated compliance with the applicable emission limit for particulate matter.</p> <p>This option is for boilers and process heaters that operate dry control systems. Existing boilers and process heaters must maintain opacity to less than or equal to 20 percent (6-minute average) except for one 6-minute period per hour of not more than 27 percent. New boilers and process heaters must maintain opacity to less than or equal to 10 percent opacity (1-hour block average).</p>

TABLE 3 TO SUBPART DDDDD OF PART 63.—OPERATING LIMITS FOR BOILERS AND PROCESS HEATERS WITH MERCURY EMISSION LIMITS AND BOILERS AND PROCESS HEATERS THAT CHOOSE TO COMPLY WITH THE ALTERNATIVE TOTAL SELECTED METALS EMISSION LIMITS

As stated in § 63.7500, you must comply with the applicable operating limits:

If you demonstrate compliance with applicable mercury and/or total selected metals emission limits using . . .	You must meet these operating limits . . .
1. Wet scrubber control .....	Maintain the minimum pressure drop and liquid flow-rate at or above the operating levels established during the performance test according to § 63.7530(c) and Table 7 to this subpart that demonstrated compliance with the applicable emission limits for mercury and/or total selected metals.
2. Fabric filter control .....	<p>a. Install and operate a bag leak detection system according to § 63.7525 and operate the fabric filter such that the bag leak detection system alarm does not sound more than 5 percent of the operating time during a 6-month period; or</p> <p>b. This option is for boilers and process heaters that operate dry control systems. Existing sources must maintain opacity to less than or equal to 20 percent (6-minute average) except for one 6-minute period per hour of not more than 27 percent. New sources must maintain opacity to less than or equal to 10 percent opacity (1-hour block average).</p>
3. Electrostatic precipitator control .....	<p>a. This option is for boilers and process heaters that operate dry control systems. Existing sources must maintain opacity to less than or equal to 20 percent (6-minute average) except for one 6-minute period per hour of not more than 27 percent. New sources must maintain opacity to less than or equal to 10 percent opacity (1-hour block average); or</p> <p>b. This option is only for boilers and process heaters that operate additional wet control systems. Maintain the minimum voltage and secondary current or total power input of the electrostatic precipitator at or above the operating limits established during the performance test according to § 63.7530(c) and Table 7 to this subpart that demonstrated compliance with the applicable emission limits for mercury and/or total selected metals.</p>
4. Dry scrubber or carbon injection control .....	Maintain the minimum sorbent or carbon injection rate at or above the operating levels established during the performance test according to § 63.7530(c) and Table 7 to this subpart that demonstrated compliance with the applicable emission limit for mercury.
5. Any other control type .....	This option is only for boilers and process heaters that operate dry control systems. Existing sources must maintain opacity to less than or equal to 20 percent (6-minute average) except for one 6-minute period per hour of not more than 27 percent. New sources must maintain opacity to less than or equal to 10 percent opacity (1-hour block average).
6. Fuel analysis .....	Maintain the fuel type or fuel mixture such that the mercury and/or total selected metals emission rates calculated according to § 63.7530(d)(4) and/or (5) is less than the applicable emission limits for mercury and/or total selected metals.

TABLE 4 TO SUBPART DDDDD OF PART 63.—OPERATING LIMITS FOR BOILERS AND PROCESS HEATERS WITH HYDROGEN CHLORIDE EMISSION LIMITS

As stated in § 63.7500, you must comply with the following applicable operating limits:

If you demonstrate compliance with applicable hydrogen chloride emission limits using . . .	You must meet these operating limits . . .
1. Wet scrubber control .....	Maintain the minimum scrubber effluent pH, pressure drop, and liquid flow-rate at or above the operating levels established during the performance test according to § 63.7530(c) and Table 7 to this subpart that demonstrated compliance with the applicable emission limit for hydrogen chloride.
2. Dry scrubber control .....	Maintain the minimum sorbent injection rate at or above the operating levels established during the performance test according to § 63.7530(c) and Table 7 to this subpart that demonstrated compliance with the applicable emission limit for hydrogen chloride.
3. Fuel analysis .....	Maintain the fuel type or fuel mixture such that the hydrogen chloride emission rate calculated according to § 63.7530(d)(3) is less than the applicable emission limit for hydrogen chloride.

TABLE 5 TO SUBPART DDDDD OF PART 63.—PERFORMANCE TESTING REQUIREMENTS

As stated in § 63.7520, you must comply with the following requirements for performance test for existing, new or reconstructed affected sources:

To conduct a performance test for the following pollutant . . .	You must . . .	Using . . .
1. Particulate Matter .....	a. Select sampling ports location and the number of traverse points. b. Determine velocity and volumetric flow-rate of the stack gas. c. Determine oxygen and carbon dioxide concentrations of the stack gas. d. Measure the moisture content of the stack gas. e. Measure the particulate matter emission concentration. f. Convert emissions concentration to lb per MMBtu emission rates.	Method 1 in appendix A to part 60 of this chapter. Method 2, 2F, or 2G in appendix A to part 60 of this chapter. Method 3A or 3B in appendix A to part 60 of this chapter, or ASME PTC 19, Part 10 (1981) (IBR, see § 63.14(i)). Method 4 in appendix A to part 60 of this chapter. Method 5 or 17 (positive pressure fabric filters must use Method 5D) in appendix A to part 60 of this chapter. Method 19 F-factor methodology in appendix A to part 60 of this chapter.
2. Total selected metals .....	a. Select sampling ports location and the number of traverse points. b. Determine velocity and volumetric flow-rate of the stack gas. c. Determine oxygen and carbon dioxide concentrations of the stack gas. d. Measure the moisture content of the stack gas. e. Measure the total selected metals emission concentration. f. Convert emissions concentration to lb per MMBtu emission rates.	Method 1 in appendix A to part 60 of this chapter. Method 2, 2F, or 2G in appendix A to part 60 of this chapter. Method 3A or 3B in appendix A to part 60 of this chapter, or ASME PTC 19, Part 10 (1981) (IBR, see § 63.14(i)). Method 4 in appendix A to part 60 of this chapter. Method 29 in appendix A to part 60 of this chapter. Method 19 F-factor methodology in appendix A to part 60 of this chapter.
3. Hydrogen chloride .....	a. Select sampling ports location and the number of traverse points. b. Determine velocity and volumetric flow-rate of the stack gas. c. Determine oxygen and carbon dioxide concentrations of the stack gas. d. Measure the moisture content of the stack gas. e. Measure the hydrogen chloride emission concentration. f. Convert emissions concentration to lb per MMBtu emission rates.	Method 1 in appendix A to part 60 of this chapter. Method 2, 2F, or 2G in appendix A to part 60 of this chapter. Method 3A or 3B in appendix A to part 60 of this chapter, or ASME PTC 19, Part 10 (1981) (IBR, see § 63.14(i)). Method 4 in appendix A to part 60 of this chapter. Method 26 or 26A in appendix A to part 60 of this chapter. Method 19 F-factor methodology in appendix A to part 60 of this chapter.
4. Mercury .....	a. Select sampling ports location and the number of traverse points. b. Determine velocity and volumetric flow-rate of the stack gas. c. Determine oxygen and carbon dioxide concentrations of the stack gas.	Method 1 in appendix A to part 60 of this chapter. Method 2, 2F, or 2G in appendix A to part 60 of this chapter. Method 3A or 3B in appendix A to part 60 of this chapter, or ASME PTC 19, Part 10 (1981) (IBR, see § 62.14(i)).

TABLE 5 TO SUBPART DDDDD OF PART 63.—PERFORMANCE TESTING REQUIREMENTS—Continued

As stated in § 63.7520, you must comply with the following requirements for performance test for existing, new or reconstructed affected sources:

To conduct a performance test for the following pollutant . . .	You must . . .	Using . . .
5. Carbon Monoxide .....	d. Measure the moisture content of the stack gas. e. Measure the mercury emission concentration.  f. Convert emissions concentration to lb per MMBtu emission rates. a. Select the sampling ports location and the number of traverse points. b. Determine oxygen and carbon dioxide concentrations of the stack gas.  c. Measure the moisture content of the stack gas. d. Measure the carbon monoxide emission concentration.	Method 4 in appendix A to part 60 of this chapter. Method 29 in appendix A to part 60 of this chapter or Method 101A in appendix B to part 61 of this chapter or ASTM Method D6784–02 (IBR, see § 63.14(b)). Method 19 F-factor methodology in appendix A to part 60 of this chapter. Method 1 in appendix A to part 60 of this chapter. Method 3A or 3B in appendix A to part 60 of this chapter, or ASTM D6522–00 (IBR, see § 63.14(b)), or ASME PTC 19, Part 10 (1981) (IBR, see § 63.14(i)). Method 4 in appendix A to part 60 of this chapter. Method 10, 10A, or 10B in appendix A to part 60 of this chapter, or ASTM D6522–00 (IBR, see § 63.14(b)) when the fuel is natural gas.

TABLE 6 TO SUBPART DDDDD OF PART 63.—FUEL ANALYSIS REQUIREMENTS

As stated in § 63.7521, you must comply with the following requirements for fuel analysis testing for existing, new or reconstructed affected sources:

To conduct a fuel analysis for the following pollutant . . .	You must . . .	Using . . .
1. Mercury .....	a. Collect fuel samples .....	Procedure in § 63.7521(c) or ASTM D2234–00 <sup>±1</sup> (for coal)(IBR, see § 63.14(b)) or ASTM D6323–98 (2003)(for biomass)(IBR, see § 63.14(b)) or equivalent.
	b. Composite fuel samples .....	Procedure in § 63.7521(d) or equivalent.
	c. Prepare composited fuel samples .....	SW–846–3050B (for solid samples) or SW–846–3020A (for liquid samples) or ASTM D2013–01 (for coal) (IBR, see § 63.14(b)) or ASTM D5198–92 (2003) (for biomass)(IBR, see § 63.14(b)) or equivalent.
	d. Determine heat content of the fuel type .....	ASTM D5865–03a (for coal)(IBR, see § 63.14(b)) or ASTM E711–87 (1996) (for biomass)(IBR, see § 63.14(b)) or equivalent.
	e. Determine moisture content of the fuel type	ASTM D3173–02 (IBR, see § 63.14(b)) or ASTM E871–82 (1998)(IBR, see § 63.14(b)) or equivalent.
	f. Measure mercury concentration in fuel sample.	ASTM D3684–01 (for coal)(IBR, see § 63.14(b)) or SW–846–7471A (for solid samples) or SW–846 7470A (for liquid samples).
	g. Convert concentrations into units of pounds of pollutant per MMBtu of heat content.	
2. Total selected metals .....	a. Collect fuel samples .....	Procedure in § 63.7521(c) or ASTM D2234–00 <sup>±1</sup> (for coal)(IBR, see § 63.14(b)) or ASTM D6323–98 (2003) (for biomass)(IBR, see § 63.14(b)) or equivalent.
	b. Composite fuel samples .....	Procedure in § 63.7521(d) or equivalent.
	c. Prepare composited fuel samples .....	SW–846–3050B (for solid samples) or SW–846–3020A (for liquid samples) or ASTM D2013–01 (for coal)(IBR, see § 63.14(b)) or ASTM D5198–92 (2003)(for biomass)(IBR, see § 63.14(b)) or equivalent.
	d. Determine heat content of the fuel type .....	ASTM D5865–03a (for coal)(IBR, see § 63.14(b)) or ASTM E 711–87 (for biomass)(IBR, see § 63.14(b)) or equivalent.
	e. Determine moisture content of the fuel type	ASTM D3173–02 (IBR, see § 63.14(b)) or ASTM E871 (IBR, see § 63.14(b)) or equivalent.



TABLE 6 TO SUBPART DDDDD OF PART 63.—FUEL ANALYSIS REQUIREMENTS—Continued

As stated in § 63.7521, you must comply with the following requirements for fuel analysis testing for existing, new or reconstructed affected sources:

To conduct a fuel analysis for the following pollutant . . .	You must . . .	Using . . .
3. Hydrogen chloride .....	f. Measure total selected metals concentration in fuel sample.  g. Convert concentrations into units of pounds of pollutant per MMBtu of heat content. a. Collect fuel samples .....  b. Composite fuel samples ..... c. Prepare composited fuel samples .....  d. Determine heat content of the fuel type .....  e. Determine moisture content of the fuel type .....  f. Measure chlorine concentration in fuel sample. g. Convert concentrations into units of pounds of pollutant per MMBtu of heat content.	SW-846-6010B or ASTM D3683-94 (2000) (for coal) (IBR, see § 63.14(b)) or ASTM E885-88 (1996) (for biomass)(IBR, see § 63.14(b)).  Procedure in § 63.7521(c) or ASTM D2234 <sup>e1</sup> (for coal)(IBR, see § 63.14(b)) or ASTM D6323-98 (2003) (for biomass)(IBR, see § 63.14(b)) or equivalent.  Procedure in § 63.7521(d) or equivalent. SW-846-3050B (for solid samples) or SW-846-3020A (for liquid samples) or ASTM D2013-01 (for coal)(IBR, see § 63.14(b)) or ASTM D5198-92 (2003) (for biomass)(IBR, see § 63.14(b)) or equivalent. ASTM D5865-03a (for coal)(IBR, see § 63.14(b)) or ASTM E711-87 (1996) (for biomass)(IBR, see § 63.14(b)) or equivalent. ASTM D3173-02 (IBR, see § 63.14(b)) or ASTM E871-82 (1998)(IBR, see § 63.14(b)) or equivalent. SW-846-9250 or ASTM E776-87 (1996) (for biomass)(IBR, see § 63.14(b)) or equivalent.

TABLE 7 TO SUBPART DDDDD OF PART 63.—ESTABLISHING OPERATING LIMITS

As stated in § 63.7520, you must comply with the following requirements for establishing operating limits:

If you have an applicable emission limit for . . .	And your operating limits are based on . . .	You must . . .	Using . . .	According to the following requirements
1. Particulate matter, mercury, or total selected metals.	a. Wet scrubber operating parameters.  b. Electrostatic precipitator operating parameters (option only for units with additional wet scrubber control).	i. Establish a site-specific minimum pressure drop and minimum flow rate operating limit according to § 63.7530(c).  i. Establish a site-specific minimum voltage and secondary current or total power input according to § 63.7530(c).	(1) Data from the pressure drop and liquid flow rate monitors and the particulate matter, mercury, or total selected metals performance test.  (1) Data from the pressure drop and liquid flow rate monitors and the particulate matter, mercury, or total selected metals performance test.	(a) You must collect pressure drop and liquid flow-rate data every 15 minutes during the entire period of the performance tests; (b) Determine the average pressure drop and liquid flow-rate for each individual test run in the three-run performance test by computing the average of all the 15-minute readings taken during each test run. (a) You must collect voltage and secondary current or total power input data every 15 minutes during the entire period of the performance tests; (b) Determine the average voltage and secondary current or total power input for each individual test run in the three-run performance test by computing the average of all the 15-minute readings taken during each test run.

TABLE 7 TO SUBPART DDDDD OF PART 63.—ESTABLISHING OPERATING LIMITS—Continued

As stated in § 63.7520, you must comply with the following requirements for establishing operating limits:

If you have an applicable emission limit for . . .	And your operating limits are based on . . .	You must . . .	Using . . .	According to the following requirements
2. Hydrogen Chloride ...	a. Wet scrubber operating parameters.	i. Establish a site-specific minimum pressure drop and minimum flow rate operating limit according to § 63.7530(c).	(1) Data from the pH, pressure drop, and liquid flow-rate monitors and the hydrogen chloride performance test.	(a) You must collect pH, pressure drop, and liquid flow-rate data every 15 minutes during the entire period of the performance tests; (b) Determine the average pH, pressure drop, and liquid flow-rate for each individual test run in the three-run performance test by computing the average of all the 15-minute readings taken during each test run.
	b. Dry scrubber operating parameters.	i. Establish a site-specific minimum sorbent injection rate operating limit according to § 63.7530(c).	(1) Data from the sorbent injection rate monitors and hydrogen chloride performance test.	(a) You must collect sorbent injection rate data every 15 minutes during the entire period of the performance tests; (b) Determine the average sorbent injection rate for each individual test run in the three-run performance test by computing the average of all the 15-minute readings taken during each test run.

TABLE 8 TO SUBPART DDDDD OF PART 63.—DEMONSTRATING CONTINUOUS COMPLIANCE

As stated in § 63.7540, you must show continuous compliance with the emission limitations for affected sources according to the following:

If you must meet the following operating limits or work practice standards . . .	You must demonstrate continuous compliance by . . .
1. Opacity .....	a. Collecting the opacity monitoring system data according to §§ 63.7525(b) and 63.7535; and b. Reducing the opacity monitoring data to 6-minute averages; and c. Maintaining opacity to less than or equal to 20 percent (6-minute average) except for one 6-minute period per hour of not more than 27 percent for existing sources; or maintaining opacity to less than or equal to 10 percent (1-hour block average) for new sources.
2. Fabric Filter Bag Leak Detection Operation .....	Installing and operating a bag leak detection system according to § 63.7525 and operating the fabric filter such that the requirements in § 63.7540(a)(9) are met.
3. Wet Scrubber Pressure Drop and Liquid Flow-rate .....	a. Collecting the pressure drop and liquid flow rate monitoring system data according to §§ 63.7525 and 63.7535; and b. Reducing the data to 3-hour block averages; and c. Maintaining the 3-hour average pressure drop and liquid flow-rate at or above the operating limits established during the performance test according to § 63.7530(c).
4. Wet Scrubber pH .....	a. Collecting the pH monitoring system data according to §§ 63.7525 and 63.7535; and b. Reducing the data to 3-hour block averages; and c. Maintaining the 3-hour average pH at or above the operating limit established during the performance test according to § 63.7530(c).
5. Dry Scrubber Sorbent or Carbon Injection Rate .....	a. Collecting the sorbent or carbon injection rate monitoring system data for the dry scrubber according to §§ 63.7525 and 63.7535; and b. Reducing the data to 3-hour block averages; and c. Maintaining the 3-hour average sorbent or carbon injection rate at or above the operating limit established during the performance test according to §§ 63.7530(c).
6. Electrostatic Precipitator Secondary Current and Voltage or Total Power Input.	a. Collecting the secondary current and voltage or total power input monitoring system data for the electrostatic precipitator according to §§ 63.7525 and 63.7535; and b. Reducing the data to 3-hour block averages; and

TABLE 8 TO SUBPART DDDDD OF PART 63.—DEMONSTRATING CONTINUOUS COMPLIANCE—Continued

As stated in § 63.7540, you must show continuous compliance with the emission limitations for affected sources according to the following:

If you must meet the following operating limits or work practice standards . . .	You must demonstrate continuous compliance by . . .
7. Fuel Pollutant Content .....	<p>c. Maintaining the 3-hour average secondary current and voltage or total power input at or above the operating limits established during the performance test according to §§ 63.7530(c).</p> <p>a. Only burning the fuel types and fuel mixtures used to demonstrate compliance with the applicable emission limit according to § 63.7530(c) or (d) as applicable; and</p> <p>b. Keeping monthly records of fuel use according to § 63.7540(a).</p>

TABLE 9 TO SUBPART DDDDD OF PART 63.—REPORTING REQUIREMENTS

As stated in § 63.7550, you must comply with the following requirements for reports:

You must submit a(n)	The report must contain . . .	You must submit the report . . .
1. Compliance report .....	<p>a. Information required in § 63.7550(c)(1) through (11); and</p> <p>b. If there are no deviations from any emission limitation (emission limit and operating limit) that applies to you and there are no deviations from the requirements for work practice standards in Table 8 to this subpart that apply to you, a statement that there were no deviations from the emission limitations and work practice standards during the reporting period. If there were no periods during which the CMSs, including continuous emissions monitoring system, continuous opacity monitoring system, and operating parameter monitoring systems, were out-of-control as specified in § 63.8(c)(7), a statement that there were no periods during which the CMSs were out-of-control during the reporting period; and</p> <p>c. If you have a deviation from any emission limitation (emission limit and operating limit) or work practice standard during the reporting period, the report must contain the information in § 63.7550(d). If there were periods during which the CMSs, including continuous emissions monitoring system, continuous opacity monitoring system, and operating parameter monitoring systems, were out-of-control, as specified in § 63.8(c)(7), the report must contain the information in § 63.7550(e); and</p> <p>d. If you had a startup, shutdown, or malfunction during the reporting period and you took actions consistent with your startup, shutdown, and malfunction plan, the compliance report must include the information in § 63.10(d)(5)(i)</p>	Semiannually according to the requirements in § 63.7550(b).
2. An immediate startup, shutdown, and malfunction report if you had a startup, shutdown, or malfunction during the reporting period that is not consistent with your startup, shutdown, and malfunction plan, and the source exceeds any applicable emission limitation in the relevant emission standard.	<p>a. Actions taken for the event; and</p> <p>b. The information in § 63.10(d)(5)(ii)</p>	<p>i. By fax or telephone within 2 working days after starting actions inconsistent with the plan; and</p> <p>ii. By letter within 7 working days after the end of the event unless you have made alternative arrangements with the permitting authority.</p>

TABLE 10 TO SUBPART DDDDD OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART DDDDD

As stated in § 63.7565, you must comply with the applicable General Provisions according to the following:

Citation	Subject	Brief description	Applicable
§ 63.1 .....	Applicability .....	Initial Applicability Determination; Applicability After Standard Established; Permit Requirements; Extensions, Notifications.	Yes.
§ 63.2 .....	Definitions .....	Definitions for part 63 standards .....	Yes.
§ 63.3 .....	Units and Abbreviations .....	Units and abbreviations for part 63 standards.	Yes.
§ 63.4 .....	Prohibited Activities .....	Prohibited Activities; Compliance date; Circumvention, Severability.	Yes.
§ 63.5 .....	Construction/Reconstruction .....	Applicability; applications; approvals .....	Yes.
§ 63.6(a) .....	Applicability .....	GP apply unless compliance extension; and GP apply to area sources that become major.	Yes.
§ 63.6(b)(1)–(4) .....	Compliance Dates for New and Reconstructed sources.	Standards apply at effective date; 3 years after effective date; upon startup; 10 years after construction or reconstruction commences for 112(f).	Yes.
§ 63.6(b)(5) .....	Notification .....	Must notify if commenced construction or reconstruction after proposal.	Yes.
§ 63.6(b)(6) .....	[Reserved].		
§ 63.6(b)(7) .....	Compliance Dates for New and Reconstructed Area Sources That Become Major.	Area sources that become major must comply with major source standards immediately upon becoming major, regardless of whether required to comply when they were an area source.	Yes.
§ 63.6(c)(1)–(2) .....	Compliance Dates for Existing Sources ...	Comply according to date in subpart, which must be no later than 3 years after effective date; and for 112(f) standards, comply within 90 days of effective date unless compliance extension.	Yes.
§ 63.6(c)(3)–(4) .....	[Reserved].		
§ 63.6(c)(5) .....	Compliance Dates for Existing Area Sources That Become Major.	Area sources that become major must comply with major source standards by date indicated in subpart or by equivalent time period (for example, 3 years).	Yes.
§ 63.6(d) .....	[Reserved].		
§ 63.6(e)(1)–(2) .....	Operation & Maintenance .....	Operate to minimize emissions at all times; and Correct malfunctions as soon as practicable; and Operation and maintenance requirements independently enforceable; information Administrator will use to determine if operation and maintenance requirements were met.	Yes.
§ 63.6(e)(3) .....	Startup, Shutdown, and Malfunction Plan (SSMP).	Requirement for SSM and startup, shutdown, malfunction plan; and content of SSMP.	Yes.
§ 63.6(f)(1) .....	Compliance Except During SSM .....	Comply with emission standards at all times except during SSM.	Yes.
§ 63.6(f)(2)–(3) .....	Methods for Determining Compliance .....	Compliance based on performance test, operation and maintenance plans, records, inspection.	Yes.
§ 63.6(g)(1)–(3) .....	Alternative Standard .....	Procedures for getting an alternative standard.	Yes.
§ 63.6(h)(1) .....	Compliance with Opacity/VE Standards ...	Comply with opacity/VE emission limitations at all times except during SSM.	Yes.
§ 63.6(h)(2)(i) .....	Determining Compliance with Opacity/Visible Emission (VE) Standards.	If standard does not state test method, use Method 9 for opacity and Method 22 for VE.	No.
§ 63.6(h)(2)(ii) .....	[Reserved].		
§ 63.6(h)(2)(iii) .....	Using Previous Tests to Demonstrate Compliance with Opacity/VE Standards	Criteria for when previous opacity/VE testing can be used to show compliance with this subpart.	Yes.
§ 63.6(h)(3) .....	[Reserved].		
§ 63.6(h)(4) .....	Notification of Opacity/VE Observation Date.	Notify Administrator of anticipated date of observation.	No.
§ 63.6(h)(5)(i),(iii)–(v) .....	Conducting Opacity/VE Observations .....	Dates and Schedule for conducting opacity/VE observations.	No.

TABLE 10 TO SUBPART DDDDD OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART DDDDD—  
Continued

As stated in § 63.7565, you must comply with the applicable General Provisions according to the following:

Citation	Subject	Brief description	Applicable
§ 63.6(h)(5)(ii) .....	Opacity Test Duration and Averaging Times.	Must have at least 3 hours of observation with thirty, 6-minute averages.	No.
§ 63.6(h)(6) .....	Records of Conditions During Opacity/VE observations.	Keep records available and allow Administrator to inspect.	No.
§ 63.6(h)(7)(i) .....	Report continuous opacity monitoring system Monitoring Data from Performance Test.	Submit continuous opacity monitoring system data with other performance test data.	Yes.
§ 63.6(h)(7)(ii) .....	Using continuous opacity monitoring system instead of Method 9.	Can submit continuous opacity monitoring system data instead of Method 9 results even if subpart requires Method 9, but must notify Administrator before performance test.	No.
§ 63.6(h)(7)(iii) .....	Averaging time for continuous opacity monitoring system during performance test.	To determine compliance, must reduce continuous opacity monitoring system data to 6-minute averages.	Yes.
§ 63.6(h)(7)(iv) .....	Continuous opacity monitoring system requirements.	Demonstrate that continuous opacity monitoring system performance evaluations are conducted according to §§ 63.8(e), continuous opacity monitoring systems are properly maintained and operated according to § 63.8(c) and data quality as § 63.8(d).	Yes.
§ 63.6(h)(7)(v) .....	Determining Compliance with Opacity/VE Standards.	Continuous opacity monitoring system is probative but not conclusive evidence of compliance with opacity standard, even if Method 9 observation shows otherwise. Requirements for continuous opacity monitoring system to be probative evidence—proper maintenance, meeting PS 1, and data have not been altered.	Yes.
§ 63.6(h)(8) .....	Determining Compliance with Opacity/VE Standards.	Administrator will use all continuous opacity monitoring system, Method 9, and Method 22 results, as well as information about operation and maintenance to determine compliance.	Yes.
§ 63.6(h)(9) .....	Adjusted Opacity Standard .....	Procedures for Administrator to adjust an opacity standard.	Yes.
§ 63.6(i)(1)–(14) .....	Compliance Extension .....	Procedures and criteria for Administrator to grant compliance extension.	Yes.
§ 63.6(j) .....	Presidential Compliance Exemption .....	President may exempt source category from requirement to comply with rule.	Yes.
§ 63.7(a)(1) .....	Performance Test Dates .....	Dates for Conducting Initial Performance Testing and Other Compliance Demonstrations.	Yes.
§ 63.7(a)(2) .....	Performance Test Dates .....	New source with initial startup date before effective date has 180 days after effective date to demonstrate compliance	Yes.
§ 63.7(a)(2)(ii–viii) .....	[Reserved].		
§ 63.7(a)(2)(ix) .....	Performance Test Dates .....	1. New source that commenced construction between proposal and promulgation dates, when promulgated standard is more stringent than proposed standard, has 180 days after effective date or 180 days after startup of source, whichever is later, to demonstrate compliance; and.	Yes.
		2. If source initially demonstrates compliance with less stringent proposed standard, it has 3 years and 180 days after the effective date of the standard or 180 days after startup of source, whichever is later, to demonstrate compliance with promulgated standard.	No.
§ 63.7(a)(3) .....	Section 114 Authority .....	Administrator may require a performance test under CAA Section 114 at any time.	Yes.

TABLE 10 TO SUBPART DDDDD OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART DDDDD—  
Continued

As stated in § 63.7565, you must comply with the applicable General Provisions according to the following:

Citation	Subject	Brief description	Applicable
§ 63.7(b)(1) .....	Notification of Performance Test .....	Must notify Administrator 60 days before the test.	No.
§ 63.7(b)(2) .....	Notification of Rescheduling .....	If rescheduling a performance test is necessary, must notify Administrator 5 days before scheduled date of rescheduled date.	Yes.
§ 63.7(c) .....	Quality Assurance/Test Plan .....	Requirement to submit site-specific test plan 60 days before the test or on date Administrator agrees with: test plan approval procedures; and performance audit requirements; and internal and external QA procedures for testing.	Yes.
§ 63.7(d) .....	Testing Facilities .....	Requirements for testing facilities .....	Yes.
§ 63.7(e)(1) .....	Conditions for Conducting Performance Tests.	1. Performance tests must be conducted under representative conditions; and	No.
		2. Cannot conduct performance tests during SSM; and	Yes.
		3. Not a deviation to exceed standard during SSM; and	Yes.
		4. Upon request of Administrator, make available records necessary to determine conditions of performance tests.	Yes.
§ 63.7(e)(2) .....	Conditions for Conducting Performance Tests.	Must conduct according to rule and EPA test methods unless Administrator approves alternative.	Yes.
§ 63.7(e)(3) .....	Test Run Duration .....	Must have three separate test runs; and Compliance is based on arithmetic mean of three runs; and conditions when data from an additional test run can be used.	Yes.
§ 63.7(e)(4) .....	Interaction with other sections of the Act	Nothing in § 63.7(e)(1) through (4) can abrogate the Administrator's authority to require testing under Section 114 of the Act.	Yes.
§ 63.7(f) .....	Alternative Test Method .....	Procedures by which Administrator can grant approval to use an alternative test method.	Yes.
§ 63.7(g) .....	Performance Test Data Analysis .....	Must include raw data in performance test report; and must submit performance test data 60 days after end of test with the Notification of Compliance Status; and keep data for 5 years.	Yes.
§ 63.7(h) .....	Waiver of Tests .....	Procedures for Administrator to waive performance test.	Yes.
§ 63.8(a)(1) .....	Applicability of Monitoring Requirements	Subject to all monitoring requirements in standard.	Yes.
§ 63.8(a)(2) .....	Performance Specifications .....	Performance Specifications in appendix B of part 60 apply.	Yes.
§ 63.8(a)(3) .....	[Reserved].		
§ 63.8(a)(4) .....	Monitoring with Flares .....	Unless your rule says otherwise, the requirements for flares in § 63.11 apply.	No.
§ 63.8(b)(1)(i)–(ii) .....	Monitoring .....	Must conduct monitoring according to standard unless Administrator approves alternative.	Yes.
§ 63.8(b)(1)(iii) .....	Monitoring .....	Flares not subject to this section unless otherwise specified in relevant standard.	No.
§ 63.8(b)(2)–(3) .....	Multiple Effluents and Multiple Monitoring Systems.	Specific requirements for installing monitoring systems; and must install on each effluent before it is combined and before it is released to the atmosphere unless Administrator approves otherwise; and if more than one monitoring system on an emission point, must report all monitoring system results, unless one monitoring system is a backup.	Yes.
§ 63.8(c)(1) .....	Monitoring System Operation and Maintenance.	Maintain monitoring system in a manner consistent with good air pollution control practices.	Yes.

TABLE 10 TO SUBPART DDDDD OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART DDDDD—  
Continued

As stated in § 63.7565, you must comply with the applicable General Provisions according to the following:

Citation	Subject	Brief description	Applicable
§ 63.8(c)(1)(i) .....	Routine and Predictable SSM .....	Maintain and operate CMS according to § 63.6(e)(1).	Yes.
§ 63.8(c)(1)(ii) .....	SSM not in SSMP .....	Must keep necessary parts available for routine repairs of CMSs.	Yes.
§ 63.8(c)(1)(iii) .....	Compliance with Operation and Maintenance Requirements.	Must develop and implement an SSMP for CMSs.	Yes.
§ 63.8(c)(2)–(3) .....	Monitoring System Installation .....	Must install to get representative emission and parameter measurements; and must verify operational status before or at performance test.	Yes.
§ 63.8(c)(4) .....	Continuous Monitoring System (CMS) Requirements.	CMSs must be operating except during breakdown, out-of-control, repair, maintenance, and high-level calibration drifts.	No.
§ 63.8(c)(4)(i) .....	Continuous Monitoring System (CMS) Requirements.	Continuous opacity monitoring system must have a minimum of one cycle of sampling and analysis for each successive 10-second period and one cycle of data recording for each successive 6-minute period.	Yes.
§ 63.8(c)(4)(ii) .....	Continuous Monitoring System (CMS) Requirements.	Continuous emissions monitoring system must have a minimum of one cycle of operation for each successive 15-minute period.	No.
§ 63.8(c)(5) .....	Continuous Opacity Monitoring system (COMS) Requirements.	Must do daily zero and high level calibrations.	Yes.
§ 63.8(c)(6) .....	Continuous Monitoring System (CMS) Requirements.	Must do daily zero and high level calibrations.	No.
§ 63.8(c)(7)–(8) .....	Continuous Monitoring Systems Requirements.	Out-of-control periods, including reporting	Yes.
§ 63.8(d) .....	Continuous Monitoring Systems Quality Control.	Requirements for continuous monitoring systems quality control, including calibration, etc.; and must keep quality control plan on record for the life of the affected source. Keep old versions for 5 years after revisions.	Yes.
§ 63.8(e) .....	Continuous monitoring systems Performance Evaluation.	Notification, performance evaluation test plan, reports.	Yes.
§ 63.8(f)(1)–(5) .....	Alternative Monitoring Method .....	Procedures for Administrator to approve alternative monitoring.	Yes.
§ 63.8(f)(6) .....	Alternative to Relative Accuracy Test .....	Procedures for Administrator to approve alternative relative accuracy tests for continuous emissions monitoring system.	No.
§ 63.8(g)(1)–(4) .....	Data Reduction .....	Continuous opacity monitoring system 6-minute averages calculated over at least 36 evenly spaced data points; and continuous emissions monitoring system 1-hour averages computed over at least 4 equally spaced data points.	Yes.
§ 63.8(g)(5) .....	Data Reduction .....	Data that cannot be used in computing averages for continuous emissions monitoring system and continuous opacity monitoring system.	No.
§ 63.9(a) .....	Notification Requirements .....	Applicability and State Delegation .....	Yes.
§ 63.9(b)(1)–(5) .....	Initial Notifications .....	Submit notification 120 days after effective date; and Notification of intent to construct/reconstruct; and Notification of commencement of construct/reconstruct; Notification of startup; and Contents of each.	Yes.
§ 63.9(c) .....	Request for Compliance Extension .....	Can request if cannot comply by date or if installed BACT/LAER.	Yes.
§ 63.9(d) .....	Notification of Special Compliance Requirements for New Source.	For sources that commence construction between proposal and promulgation and want to comply 3 years after effective date.	Yes.
§ 63.9(e) .....	Notification of Performance Test .....	Notify Administrator 60 days prior .....	No.

TABLE 10 TO SUBPART DDDDD OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART DDDDD—  
Continued

As stated in § 63.7565, you must comply with the applicable General Provisions according to the following:

Citation	Subject	Brief description	Applicable
§ 63.9(f) .....	Notification of VE/Opacity Test .....	Notify Administrator 30 days prior .....	No.
§ 63.9(g) .....	Additional Notifications When Using Continuous Monitoring Systems.	Notification of performance evaluation; and notification using continuous opacity monitoring system data; and notification that exceeded criterion for relative accuracy.	Yes.
§ 63.9(h)(1)–(6) .....	Notification of Compliance Status .....	Contents; and due 60 days after end of performance test or other compliance demonstration, and when to submit to Federal vs. State authority.	Yes.
§ 63.9(i) .....	Adjustment of Submittal Deadlines .....	Procedures for Administrator to approve change in when notifications must be submitted.	Yes.
§ 63.9(j) .....	Change in Previous Information .....	Must submit within 15 days after the change.	Yes.
§ 63.10(a) .....	Recordkeeping/Reporting .....	Applies to all, unless compliance extension; and when to submit to Federal vs. State authority; and procedures for owners of more than 1 source.	Yes.
§ 63.10(b)(1) .....	Recordkeeping/Reporting .....	General Requirements; and keep all records readily available and keep for 5 years.	Yes.
§ 63.10(b)(2)(i)–(v) .....	Records related to Startup, Shutdown, and Malfunction.	Occurrence of each of operation (process, equipment); and occurrence of each malfunction of air pollution equipment; and maintenance of air pollution control equipment; and actions during startup, shutdown, and malfunction.	Yes.
§ 63.10(b)(2)(vi) and (x–xi) .....	Continuous monitoring systems Records	Malfunctions, inoperative, out-of-control; and calibration checks; and adjustments, maintenance.	Yes.
§ 63.10(b)(2)(vii)–(ix) .....	Records .....	Measurements to demonstrate compliance with emission limitations; and performance test, performance evaluation, and visible emission observation results; and measurements to determine conditions of performance tests and performance evaluations.	Yes.
§ 63.10(b)(2)(xii) .....	Records .....	Records when under waiver .....	Yes.
§ 63.10(b)(2)(xiii) .....	Records .....	Records when using alternative to relative accuracy test.	No.
§ 63.10(b)(2)(xiv) .....	Records .....	All documentation supporting Initial Notification and Notification of Compliance Status.	Yes.
§ 63.10(b)(3) .....	Records .....	Applicability Determinations .....	Yes.
§ 63.10(c)(1),(5)–(8),(10)–(15) .....	Records .....	Additional Records for continuous monitoring systems.	Yes.
§ 63.10(c)(7)–(8) .....	Records .....	Records of excess emissions and parameter monitoring exceedances for continuous monitoring systems.	No.
§ 63.10(d)(1) .....	General Reporting Requirements .....	Requirement to report .....	Yes.
§ 63.10(d)(2) .....	Report of Performance Test Results .....	When to submit to Federal or State authority.	Yes.
§ 63.10(d)(3) .....	Reporting Opacity or VE Observations ....	What to report and when .....	Yes.
§ 63.10(d)(4) .....	Progress Reports .....	Must submit progress reports on schedule if under compliance extension.	Yes.
§ 63.10(d)(5) .....	Startup, Shutdown, and Malfunction Reports.	Contents and submission .....	Yes.
§ 63.10(e)(1)(2) .....	Additional continuous monitoring systems Reports.	Must report results for each CEM on a unit; and written copy of performance evaluation; and 3 copies of continuous opacity monitoring system performance evaluation.	Yes.
§ 63.10(e)(3) .....	Reports .....	Excess Emission Reports .....	No.
§ 63.10(e)(3)(i–iii) .....	Reports .....	Schedule for reporting excess emissions and parameter monitor exceedance (now defined as deviations).	No.



TABLE 10 TO SUBPART DDDDD OF PART 63.—APPLICABILITY OF GENERAL PROVISIONS TO SUBPART DDDDD—  
Continued

As stated in § 63.7565, you must comply with the applicable General Provisions according to the following:

Citation	Subject	Brief description	Applicable
§ 63.10(e)(3)(iv–v) .....	Excess Emissions Reports .....	Requirement to revert to quarterly submission if there is an excess emissions and parameter monitor exceedance (now defined as deviations); and provision to request semiannual reporting after compliance for one year; and submit report by 30th day following end of quarter or calendar half; and if there has not been an exceedance or excess emission (now defined as deviations), report contents is a statement that there have been no deviations.	No.
§ 63.10(e)(3)(iv–v) .....	Excess Emissions Reports .....	Must submit report containing all of the information in § 63.10(c)(5–13), § 63.8(c)(7–8).	No.
§ 63.10(e)(3)(vi–viii) .....	Excess Emissions Report and Summary Report.	Requirements for reporting excess emissions for continuous monitoring systems (now called deviations); Requires all of the information in § 63.10(c)(5–13), § 63.8(c)(7–8).	No.
§ 63.10(e)(4) .....	Reporting continuous opacity monitoring system data.	Must submit continuous opacity monitoring system data with performance test data.	Yes.
§ 63.10(f) .....	Waiver for Recordkeeping/Reporting .....	Procedures for Administrator to waive .....	Yes.
§ 63.11 .....	Flares .....	Requirements for flares .....	No.
§ 63.12 .....	Delegation .....	State authority to enforce standards .....	Yes.
§ 63.13 .....	Addresses .....	Addresses where reports, notifications, and requests are sent.	Yes.
§ 63.14 .....	Incorporation by Reference .....	Test methods incorporated by reference	Yes.
§ 63.15 .....	Availability of Information .....	Public and confidential Information .....	Yes.

## Appendix A to Subpart DDDDD— Methodology and Criteria for Demonstrating Eligibility for the Health-Based Compliance Alternatives Specified for the Large Solid Fuel Subcategory

### 1. Purpose/Introduction

This appendix provides the methodology and criteria for demonstrating that your affected source is eligible for the compliance alternative for the HCl emission limit and/or the total selected metals (TSM) emission limit. This appendix specifies emissions testing methods that you must use to determine HCl, chlorine, and manganese emissions from the affected units and what parts of the affected source facility must be included in the eligibility demonstration. You must demonstrate that your affected source is eligible for the health-based compliance alternatives using either a look-up table analysis (based on the look-up tables included in this appendix) or a site-specific compliance demonstration performed according to the criteria specified in this appendix. This appendix also specifies how and when you file any eligibility demonstrations for your affected source and how to show that your affected source remains eligible for the health-based compliance alternatives in the future.

### 2. Who Is Eligible To Demonstrate That They Qualify for the Health-Based Compliance Alternatives?

Each new, reconstructed, or existing affected source may demonstrate that they are eligible for the health-based compliance alternatives. Section 63.7490 of subpart DDDDD defines the affected source and explains which affected sources are new, existing, or reconstructed.

### 3. What Parts of My Facility Have To Be Included in the Health-Based Eligibility Demonstration?

If you are attempting to determine your eligibility for the compliance alternative for HCl, you must include every emission point subject to subpart DDDDD that emits either HCl or Cl<sub>2</sub> in the eligibility demonstration.

If you are attempting to determine your eligibility for the compliance alternative for TSM, you must include every emission point subject to subpart DDDDD that emits manganese in the eligibility demonstration.

### 4. How Do I Determine HAP Emissions From My Affected Source?

(a) You must conduct HAP emissions tests or fuel analysis for every emission point covered under subpart DDDDD within the affected source facility according to the requirements in paragraphs (b) through (f) of this section and the methods specified in Table 1 of this appendix.

(1) If you are attempting to determine your eligibility for the compliance alternative for HCl, you must test the subpart DDDDD units

at your facility for both HCl and Cl<sub>2</sub>. When conducting fuel analysis, you must assume any chlorine detected will be emitted as Cl<sub>2</sub>.

(2) If you are attempting to determine your eligibility for the compliance alternative for TSM, you must test the subpart DDDDD units at your facility for manganese.

(b) *Periods when emissions tests must be conducted.*

(1) You must not conduct emissions tests during periods of startup, shutdown, or malfunction, as specified in § 63.7(e)(1).

(2) You must test under worst-case operating conditions as defined in this appendix. You must describe your worst-case operating conditions in your performance test report for the process and control systems (if applicable) and explain why the conditions are worst-case.

(c) *Number of test runs.* You must conduct three separate test runs for each test required in this section, as specified in § 63.7(e)(3). Each test run must last at least 1 hour.

(d) *Sampling locations.* Sampling sites must be located at the outlet of the control device and prior to any releases to the atmosphere.

(e) *Collection of monitoring data for HAP control devices.* During the emissions test, you must collect operating parameter monitoring system data at least every 15 minutes during the entire emissions test and establish the site-specific operating requirements in Tables 3 or 4, as appropriate, of subpart DDDDD using data from the monitoring system and the procedures specified in § 63.7530 of subpart DDDDD.

(f) *Nondetect data.* You may treat emissions of an individual HAP as zero if all of the test runs result in a nondetect measurement and the condition in paragraph (f)(1) of this section is met for the manganese test method. Otherwise, nondetect data for

individual HAP must be treated as one-half of the method detection limit.

(1) For manganese measured using Method 29 in appendix A to 40 CFR part 60, you analyze samples using atomic absorption spectroscopy (AAS).

(g) You must determine the maximum hourly emission rate for each appropriate emission point according to Equation 1 of this appendix.

$$\text{Max Hourly Emissions} = \sum_{i=1}^n (\text{Er} \times \text{Hm}) \quad (\text{Eq. 1})$$

Where:

Max Hourly Emissions = Maximum hourly emissions for hydrogen chloride, chlorine, or manganese, in units of pounds per hour.

Er = Emission rate (the 3-run average as determined according to Table 1 of this appendix or the pollutant concentration in the fuel samples analyzed according to § 63.7521) for hydrogen chloride, chlorine, or manganese, in units of pounds per million Btu of heat input.

Hm = Maximum rated heat input capacity of appropriate emission point, in units of million Btu per hour.

#### 5. What Are the Criteria for Determining If My Facility Is Eligible for the Health-Based Compliance Alternatives?

(a) Determine the HAP emissions from each appropriate emission point within the affected source facility using the procedures specified in section 4 of this appendix.

(b) Demonstrate that your facility is eligible for either of the health-based compliance alternatives using either the methods described in section 6 of this appendix (look-up table analysis) or section 7 of this appendix (site-specific compliance demonstration).

(c) Your facility is eligible for the health-based compliance alternative for HCl if one of the following two statements is true:

(1) The calculated HCl-equivalent emission rate is below the appropriate value in the look-up table;

(2) Your site-specific compliance demonstration indicates that your maximum HI for HCl and Cl<sub>2</sub> at a location where people live is less than or equal to 1.0;

(d) Your facility is eligible for the health-based compliance alternative for TSM if one of the following two statements is true:

(1) The manganese emission rate for all your subpart DDDDD sources is below the appropriate value in the look-up table;

(2) Your site-specific compliance demonstration indicates that your maximum HQ for manganese at a location where people live is less than or equal to 1.0.

#### 6. How Do I Conduct a Look-Up Table Analysis?

You may use look-up tables to demonstrate that your facility is eligible for either the compliance alternative for the HCl emission limit or the compliance alternative for TSM emission limit.

(a) *HCl health-based compliance alternative.* (1) To calculate the total toxicity-weighted HCl-equivalent emission rate for your facility, first calculate the total affected source emission rate of HCl by summing the maximum hourly HCl emission rates from all your subpart DDDDD sources. Then, similarly, calculate the total affected source emission rate for Cl<sub>2</sub>. Finally, calculate the toxicity-weighted emission rate (expressed in HCl equivalents) according to Equation 2 of this appendix.

$$\text{ER}_{\text{tw}} = \sum (\text{ER}_i \times (\text{RfC}_{\text{HCl}} / \text{RfC}_i)) \quad (\text{Eq. 2})$$

Where:

ER<sub>tw</sub> is the HCl-equivalent emission rate, lb/hr.

ER<sub>i</sub> is the emission rate of HAP i in lbs/hr  
RfC<sub>i</sub> is the reference concentration of HAP i  
RfC<sub>HCl</sub> is the reference concentration of HCl (RfCs for HCl and Cl<sub>2</sub> can be found at <http://www.epa.gov/ttn/atw/toxsource/summary.html>).

(2) The calculated HCl-equivalent emission rate will then be compared to the appropriate allowable emission rate in Table 2 of this appendix. To determine the correct value from the table, an average value for the appropriate subpart DDDDD emission points should be used for stack height and the minimum distance between any appropriate subpart DDDDD stack at the facility and the property boundary should be used for property boundary distance. Appropriate emission points and stacks are those that emit HCl and/or Cl<sub>2</sub>. If one or both of these values does not match the exact values in the lookup tables, then use the next lowest table value. (Note: If your average stack height is less than 5 meters, you must use the 5 meter row.) Your facility is eligible to comply with the health-based alternative HCl emission limit if your toxicity-weighted HCl equivalent emission rate, determined using the methods specified in this appendix, does not exceed the appropriate value in Table 2 of this appendix.

(b) *TSM Compliance Alternative.* To calculate the total manganese emission rate for your affected source, sum the maximum hourly manganese emission rates for all your subpart DDDDD sources. The calculated manganese emission rate will then be compared to the allowable emission rate in the Table 3 of this appendix. To determine the correct value from the table, an average value for the appropriate subpart DDDDD emission points should be used for stack height and the minimum distance between any appropriate subpart DDDDD stack at the facility and the property boundary should be used for property boundary distance. Appropriate emission points and stacks are those that emit manganese. If one or both of these values does not match the exact values in the lookup tables, then use the next lowest table value. (Note: If your average stack height is less than 5 meters, you must use the 5 meter row.) Your facility may exclude manganese when demonstrating compliance with the TSM emission limit if your manganese emission rate, determined using the methods specified in this appendix, does not exceed the appropriate value specified in Table 3 of this appendix.

#### 7. How Do I Conduct a Site-Specific Compliance Demonstration?

If you fail to demonstrate that your facility is able to comply with one or both of the

alternative health-based emission standards using the look-up table approach, you may choose to perform a site-specific compliance demonstration for your facility. You may use any scientifically-accepted peer-reviewed risk assessment methodology for your site-specific compliance demonstration. An example of one approach for performing a site-specific compliance demonstration for air toxics can be found in the EPA's "Air Toxics Risk Assessment Reference Library, Volume 2, Site-Specific Risk Assessment Technical Resource Document", which may be obtained through the EPA's Air Toxics Web site at [http://www.epa.gov/ttn/fera/risk\\_atoxic.html](http://www.epa.gov/ttn/fera/risk_atoxic.html).

(a) Your facility is eligible for the HCl alternative compliance option if your site-specific compliance demonstration shows that the maximum HI for HCl and Cl<sub>2</sub> from your subpart DDDDD sources is less than or equal to 1.0.

(b) Your facility is eligible for the TSM alternative compliance option if your site-specific compliance demonstration shows that the maximum HQ for manganese from your subpart DDDDD sources is less than or equal to 1.0.

(c) At a minimum, your site-specific compliance demonstration must:

(1) Estimate long-term inhalation exposures through the estimation of annual

or multi-year average ambient concentrations;

(2) Estimate the inhalation exposure for the individual most exposed to the facility's emissions;

(3) Use site-specific, quality-assured data wherever possible;

(4) Use health-protective default assumptions wherever site-specific data are not available, and;

(5) Contain adequate documentation of the data and methods used for the assessment so that it is transparent and can be reproduced by an experienced risk assessor and emissions measurement expert.

(d) Your site-specific compliance demonstration need not:

(1) Assume any attenuation of exposure concentrations due to the penetration of outdoor pollutants into indoor exposure areas;

(2) Assume any reaction or deposition of the emitted pollutants during transport from the emission point to the point of exposure.

#### **8. What Must My Health-Based Eligibility Demonstration Contain?**

(a) Your health-based eligibility demonstration must contain, at a minimum, the information specified in paragraphs (a)(1) through (6) of this section.

(1) Identification of each appropriate emission point at the affected source facility, including the maximum rated capacity of each appropriate emission point.

(2) Stack parameters for each appropriate emission point including, but not limited to, the parameters listed in paragraphs (a)(2)(i) through (iv) below:

(i) Emission release type.

(ii) Stack height, stack area, stack gas temperature, and stack gas exit velocity.

(iii) Plot plan showing all emission points, nearby residences, and fence line.

(iv) Identification of any control devices used to reduce emissions from each appropriate emission point.

(3) Emission test reports for each pollutant and appropriate emission point which has been tested using the test methods specified in Table 1 of this appendix, including a description of the process parameters identified as being worst case. Fuel analyses for each fuel and emission point which has been conducted including collection and analytical methods used.

(4) Identification of the RfC values used in your look-up table analysis or site-specific compliance demonstration.

(5) Calculations used to determine the HCl-equivalent or manganese emission rates according to sections 6(a) or (b) of this appendix.

(6) Identification of the controlling process factors (including, but not limited to, fuel type, heat input rate, type of control devices, process parameters reflecting the emissions rates used for your eligibility demonstration) that will become Federally enforceable permit conditions used to show that your facility remains eligible for the health-based compliance alternatives.

(b) If you use the look-up table analysis in section 6 of this appendix to demonstrate that your facility is eligible for either health-based compliance alternative, your eligibility

demonstration must contain, at a minimum, the information in paragraphs (a) and (b)(1) through (3) of this section.

(1) Calculations used to determine the average stack height of the subpart DDDDD emission points that emit either manganese or HCl and Cl<sub>2</sub>.

(2) Identification of the subpart DDDDD emission point, that emits either manganese or HCl and Cl<sub>2</sub>, with the minimum distance to the property boundary of the facility.

(3) Comparison of the values in the look-up tables (Tables 2 and 3 of this appendix) to your maximum HCl-equivalent or manganese emission rates.

(c) If you use a site-specific compliance demonstration as described in section 7 of this appendix to demonstrate that your facility is eligible, your eligibility demonstration must contain, at a minimum, the information in paragraphs (a) and (c)(1) through (7) of this section:

(1) Identification of the risk assessment methodology used.

(2) Documentation of the fate and transport model used.

(3) Documentation of the fate and transport model inputs, including the information described in paragraphs (a)(1) through (5) of this section converted to the dimensions required for the model and all of the following that apply: meteorological data; building, land use, and terrain data; receptor locations and population data; and other facility-specific parameters input into the model.

(4) Documentation of the fate and transport model outputs.

(5) Documentation of any exposure assessment and risk characterization calculations.

(6) Comparison of the HQ HI to the limit of 1.0.

#### **9. When Do I Have to Complete and Submit My Health-Based Eligibility Demonstration?**

(a) If you have an existing affected source, you must complete and submit your eligibility demonstration to your permitting authority, along with a signed certification that the demonstration is an accurate depiction of your facility, no later than the date one year prior to the compliance date of subpart DDDDD. A separate copy of the eligibility demonstration must be submitted to: U.S. EPA, Risk and Exposure Assessment Group, Emission Standards Division (C404-01), Attn: Group Leader, Research Triangle Park, North Carolina 27711, electronic mail address [REAG@epa.gov](mailto:REAG@epa.gov).

(b) If you have a new or reconstructed affected source that starts up before the effective date of subpart DDDDD, or an affected source that is an area source that increases its emissions or its potential to emit such that it becomes a major source of HAP before the effective date of subpart DDDDD, then you must comply with the requirements of subpart DDDDD until your eligibility demonstration is completed and submitted to your permitting authority.

(c) If you have a new or reconstructed affected source that starts up after the effective date of subpart DDDDD, or an affected source that is an area source that increases its emissions or its potential to emit

such that it becomes a major source of HAP after the effective date for subpart DDDDD, then you must follow the schedule in paragraphs (c)(1) and (2) of this section.

(1) You must complete and submit a preliminary eligibility demonstration based on the information (e.g., equipment types, estimated emission rates, etc.) used to obtain your title V permit. You must base your preliminary eligibility demonstration on the maximum emissions allowed under your title V permit. If the preliminary eligibility demonstration indicates that your affected source facility is eligible for either compliance alternative, then you may start up your new affected source and your new affected source will be considered in compliance with the alternative HCl standard and subject to the compliance requirements in this appendix or, in the case of manganese, your compliance demonstration with the TSM emission limit is based on 7 metals (excluding manganese).

(2) You must conduct the emission tests or fuel analysis specified in section 4 of this appendix upon initial startup and use the results of these emissions tests to complete and submit your eligibility demonstration within 180 days following your initial startup date. To be eligible, you must meet the criteria in section 11 of this appendix within 18 months following initial startup of your affected source.

#### **10. When Do I Become Eligible for the Health-Based Compliance Alternatives?**

To be eligible for either health-based compliance alternative, the parameters that defined your affected source as eligible for the health-based compliance alternatives (including, but not limited to, fuel type, fuel mix (annual average), type of control devices, process parameters reflecting the emissions rates used for your eligibility demonstration) must be submitted for incorporation as Federally enforceable limits into your title V permit. If you do not meet these criteria, then your affected source is subject to the applicable emission limits, operating limits, and work practice standards in Subpart DDDDD.

#### **11. How Do I Ensure That My Facility Remains Eligible for the Health-Based Compliance Alternatives?**

(a) You must update your eligibility demonstration and resubmit it each time you have a process change, such that any of the parameters that defined your affected source changes in a way that could result in increased HAP emissions (including, but not limited to, fuel type, fuel mix (annual average), change in type of control device, changes in process parameters documented as worst-case conditions during the emissions testing used for your approved eligibility demonstration).

(b) If you are updating your eligibility demonstration to account for an action in paragraph (a) of this section, then you must perform emission testing or fuel analysis according to section 4 of this appendix for the subpart DDDDD emission points that may have increased HAP emissions beyond the levels reflected in your previously approved eligibility demonstration due to the process

change. You must submit your revised eligibility demonstration to the permitting authority prior to revising your permit to incorporate the process change. If your updated eligibility demonstration indicates that your affected source is no longer eligible for the health-based compliance alternatives, then you must comply with the applicable emission limits, operating limits, and compliance requirements in Subpart DDDDD prior to making the process change and revising your permit.

## 12. What Records Must I Keep?

You must keep records of the information used in developing the eligibility demonstration for your affected source, including all of the information specified in section 8 of this appendix.

## 13. Definitions

The definitions in § 63.7575 of subpart DDDDD apply to this appendix. Additional definitions applicable for this appendix are as follows:

*Hazard Index (HI)* means the sum of more than one hazard quotient for multiple substances and/or multiple exposure pathways.

*Hazard Quotient (HQ)* means the ratio of the predicted media concentration of a pollutant to the media concentration at which no adverse effects are expected. For inhalation exposures, the HQ is calculated as the air concentration divided by the RfC.

*Look-up table analysis* means a risk screening analysis based on comparing the HAP or HAP-equivalent emission rate from the affected source to the appropriate maximum allowable HAP or HAP-equivalent emission rates specified in Tables 2 and 3 of this appendix.

*Reference Concentration (RfC)* means an estimate (with uncertainty spanning perhaps an order of magnitude) of a continuous inhalation exposure to the human population (including sensitive subgroups) that is likely to be without an appreciable risk of deleterious effects during a lifetime. It can be derived from various types of human or animal data, with uncertainty factors generally applied to reflect limitations of the data used.

*Worst-case operating conditions* means operation of an affected unit during emissions testing under the conditions that result in the highest HAP emissions or that result in the emissions stream composition (including HAP and non-HAP) that is most challenging for the control device if a control device is used. For example, worst-case conditions could include operation of an affected unit firing solid fuel likely to produce the most HAP.

TABLE 1 TO APPENDIX B OF SUBPART DDDDD—EMISSION TEST METHODS

For . . .	You must . . .	Using . . .
(1) Each subpart DDDDD emission point for which you choose to use a compliance alternative.	Select sampling ports' location and the number of traverse points.	Method 1 of 40 CFR part 60, appendix A.
(2) Each subpart DDDDD emission point for which you choose to use a compliance alternative.	Determine velocity and volumetric flow rate; ...	Method 2, 2F, or 2G in appendix A to 40 CFR part 60.
(3) Each subpart DDDDD emission point for which you choose to use a compliance alternative.	Conduct gas molecular weight analysis .....	Method 3A or 3B in appendix A to 40 CFR part 60.
(4) Each subpart DDDDD emission point for which you choose to use a compliance alternative.	Measure moisture content of the stack gas ....	Method 4 in appendix A to 40 CFR part 60.
(5) Each subpart DDDDD emission point for which you choose to use the HCl compliance alternative.	Measure the hydrogen chloride and chlorine emission concentrations.	Method 26 or 26A in appendix A to 40 CFR part 60.
(6) Each subpart DDDDD emission point for which you choose to use the TSM compliance alternative.	Measure the manganese emission concentration.	Method 29 in appendix A to 40 CFR part 60.
(7) Each subpart DDDDD emission point for which you choose to use a compliance alternative.	Convert emissions concentration to lb per MMBtu emission rates.	Method 19 F-factor methodology in appendix A to part 60 of this chapter.

TABLE 2 TO APPENDIX A OF SUBPART DDDDD—ALLOWABLE TOXICITY-WEIGHTED EMISSION RATE EXPRESSED IN HCl EQUIVALENTS (lbs/hr)

Stack ht. (m)	Distance to property boundary (m)											
	0	50	100	150	200	250	500	1000	1500	2000	3000	5000
5 .....	114.9	114.9	114.9	114.9	114.9	114.9	144.3	287.3	373.0	373.0	373.0	373.0
10 .....	188.5	188.5	188.5	188.5	188.5	188.5	195.3	328.0	432.5	432.5	432.5	432.5
20 .....	386.1	386.1	386.1	386.1	386.1	386.1	386.1	425.4	580.0	602.7	602.7	602.7
30 .....	396.1	396.1	396.1	396.1	396.1	396.1	396.1	436.3	596.2	690.6	807.8	816.5
40 .....	408.1	408.1	408.1	408.1	408.1	408.1	408.1	448.2	613.3	715.5	832.2	966.0
50 .....	421.4	421.4	421.4	421.4	421.4	421.4	421.4	460.6	631.0	746.3	858.2	1002.8
60 .....	435.5	435.5	435.5	435.5	435.5	435.5	435.5	473.4	649.0	778.6	885.0	1043.4
70 .....	450.2	450.2	450.2	450.2	450.2	450.2	450.2	486.6	667.4	813.8	912.4	1087.4
80 .....	465.5	465.5	465.5	465.5	465.5	465.5	465.5	500.0	685.9	849.8	940.9	1134.8
100 .....	497.5	497.5	497.5	497.5	497.5	497.5	497.5	527.4	723.6	917.1	1001.2	1241.3
200 .....	677.3	677.3	677.3	677.3	677.3	677.3	677.3	682.3	919.8	1167.1	1390.4	1924.6

TABLE 3 TO APPENDIX A OF SUBPART DDDDD—ALLOWABLE MANGANESE EMISSION RATE (lbs/hr)

Stack ht. (m)	Distance to property boundary (m)											
	0	50	100	150	200	250	500	1000	1500	2000	3000	5000
5 .....	0.29	0.29	0.29	0.29	0.29	0.29	0.36	0.72	0.93	0.93	0.93	0.94
10 .....	0.47	0.47	0.47	0.47	0.47	0.47	0.49	0.82	1.08	1.08	1.08	1.08
20 .....	0.97	0.97	0.97	0.97	0.97	0.97	0.97	1.06	1.45	1.51	1.51	1.51
30 .....	0.99	0.99	0.99	0.99	0.99	0.99	0.99	1.09	1.49	1.72	2.02	2.04
40 .....	1.02	1.02	1.02	1.02	1.02	1.02	1.02	1.12	1.53	1.79	2.08	2.42
50 .....	1.05	1.05	1.05	1.05	1.05	1.05	1.05	1.15	1.58	1.87	2.15	2.51
60 .....	1.09	1.09	1.09	1.09	1.09	1.09	1.09	1.18	1.62	1.95	2.21	2.61
70 .....	1.13	1.13	1.13	1.13	1.13	1.13	1.13	1.22	1.67	2.03	2.28	2.72
80 .....	1.16	1.16	1.16	1.16	1.16	1.16	1.16	1.25	1.71	2.12	2.35	2.84
100 .....	1.24	1.24	1.24	1.24	1.24	1.24	1.24	1.32	1.81	2.29	2.50	3.10
200 .....	1.69	1.69	1.69	1.69	1.69	1.69	1.69	1.71	2.30	2.92	3.48	4.81

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